UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2020

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: 001-36383

Five9, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware	**94-3394123**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)

Bishop Ranch 8
4000 Executive Parkway, Suite 400
San Ramon, CA 94583
(Address of Principal Executive Offices) (Zip Code)
(925) 201-2000
(Registrant's Telephone Number, Including Area Code)

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

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
Common stock, par value $0.001 per share	FIVN	The NASDAQ Global Market

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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes: ☒ No: ☐

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

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

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. Yes: ☐ No: ☐

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, 2020, there were 65,335,870 shares of the Registrant's common stock, par value $0.001 per share, outstanding.

FIVE9, INC.

FORM 10-Q

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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 and Section 21E of the Securities Exchange Act of 1934, which involve substantial risks and uncertainties. These statements reflect the current views of our senior management with respect to future events and our financial performance. These forward-looking statements include statements with respect to our business, expenses, strategies, losses, growth plans, product and client initiatives, market growth projections, and our industry. Statements that include the words “expect,” “intend,” “plan,” “believe,” “project,” “forecast,” “estimate,” “may,” “should,” “anticipate” and similar statements of a future or forward-looking nature identify forward-looking statements for purposes of the federal securities laws or otherwise.

Forward-looking statements address matters that involve risks and uncertainties. Accordingly, there are or will be important factors that could cause our actual results to differ materially from those indicated in these statements. These factors include the information set forth in Part 1, Item 1A, of our Annual Report on Form 10-K for the fiscal year ended December 31, 2019 and Part II, Item 1A, of this Quarterly Report, which we encourage you to carefully read, and include the following:

- the effects of the COVID-19 pandemic have materially affected how we, our clients and business partners are operating, and the duration and extent to which it will impact our future results of operations and overall financial performance remain uncertain;
- adverse economic conditions may harm our business;
- our quarterly and annual results may fluctuate significantly, including as a result of the timing and success of new product and feature introductions by us, may not fully reflect the underlying performance of our business and may result in decreases in the price of our common stock;
- if we are unable to attract new clients or sell additional services and functionality to our existing clients, our revenue and revenue growth will be harmed;
- our recent rapid growth may not be indicative of our future growth, and even if we continue to grow rapidly, we may fail to manage our growth effectively;
- failure to adequately retain and expand our sales force will impede our growth;
- if we fail to manage our technical operations infrastructure, our existing clients may experience service outages, our new clients may experience delays in the deployment of our solution and we could be subject to, among other things, claims for credits or damages;
- our growth depends in part on the success of our strategic relationships with third parties and our failure to successfully maintain, grow and manage these relationships could harm our business;
- we have established, and are continuing to increase, our network of master agents and resellers to sell our solution; our failure to effectively develop, manage, and maintain this network could materially harm our revenues;
- security breaches and improper access to or disclosure of our data or our clients’ data, or other cyber-attacks on our systems, could result in litigation and regulatory risk, harm our reputation and our business;
- the markets in which we participate involve numerous competitors and are highly competitive, and if we do not compete effectively, our operating results could be harmed;
- if our existing clients terminate their subscriptions or reduce their subscriptions and related usage, our revenues and gross margins will be harmed and we will be required to spend more money to grow our client base;
- we sell our solution to larger organizations that require longer sales and implementation cycles and often demand more configuration and integration services or customized features and functions that we may not offer, any of which could delay or prevent these sales and harm our growth rates, business and operating results;
- because a significant percentage of our revenue is derived from existing clients, downturns or upturns in new sales will not be immediately reflected in our operating results and may be difficult to discern;
- we rely on third-party telecommunications and internet service providers to provide our clients and their customers with telecommunication services and connectivity to our cloud contact center software and any

failure by these service providers to provide reliable services could cause us to lose clients and subject us to claims for credits or damages, among other things;

- we have a history of losses and we may be unable to achieve or sustain profitability;
- the contact center software solutions market is subject to rapid technological change, and we must develop and sell incremental and new products in order to maintain and grow our business;
- we may not be able to secure additional financing on favorable terms, or at all, to meet our future capital needs;
- we may acquire other companies or technologies or be the target of strategic transactions, which could divert our management's attention, result in additional dilution to our stockholders and otherwise disrupt our operations and harm our operating results;
- failure to comply with laws and regulations could harm our business and our reputation; and
- we may not have sufficient cash to service our convertible senior notes and repay such notes, if required.

The foregoing factors should not be construed as exhaustive and should be read together with the other cautionary statements included in this report. If one or more of these or other risks or uncertainties materialize, or if our underlying assumptions prove to be incorrect, our actual results may differ materially from what we anticipate. You should not place undue reliance on our forward-looking statements. Any forward-looking statements you read in this report reflect our views only as of the date of this report with respect to future events and are subject to these and other risks, uncertainties and assumptions relating to our operations, results of operations, growth strategy and liquidity. We undertake no obligation to update any forward-looking statements made in this report to reflect events or circumstances after the date of this report or to reflect new information or the occurrence of unanticipated events, except as required by law.

PART I. FINANCIAL INFORMATION

ITEM 1. Financial Statements

FIVE9, INC.

CONDENSED CONSOLIDATED BALANCE SHEETS

(In thousands, except per share data)

	June 30, 2020	December 31, 2019
	(Unaudited)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 233,235	$ 77,976
Marketable investments	452,708	241,973
Accounts receivable, net	39,607	37,655
Prepaid expenses and other current assets	17,529	10,656
Deferred contract acquisition costs	16,151	13,014
Total current assets	759,230	381,274
Property and equipment, net	39,799	33,190
Operating lease right-of-use assets	10,006	8,746
Intangible assets, net	25,605	15,533
Goodwill	34,444	11,798
Marketable investments	82,064	—
Other assets	2,789	1,184
Deferred contract acquisition costs — less current portion	39,366	30,655
Total assets	$ 993,303	$ 482,380
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 12,045	$ 10,156
Accrued and other current liabilities	34,817	18,385
Operating lease liabilities	5,247	5,064
Accrued federal fees	1,670	2,303
Sales tax liabilities	1,565	1,885
Finance lease liabilities	2,032	3,518
Deferred revenue	26,306	24,681
Total current liabilities	83,682	65,992
Convertible senior notes	642,203	209,604
Sales tax liabilities — less current portion	847	838
Operating lease liabilities — less current portion	5,249	4,329
Finance lease liabilities — less current portion	100	809
Other long-term liabilities	6,814	4,350
Total liabilities	738,895	285,922
Commitments and contingencies (Note 10)		
Stockholders' equity:		
Common stock	65	61
Additional paid-in capital	432,877	351,870
Accumulated other comprehensive income	1,004	576
Accumulated deficit	(179,538)	(156,049)
Total stockholders' equity	254,408	196,458
Total liabilities and stockholders' equity	$ 993,303	$ 482,380

See accompanying notes to the unaudited condensed consolidated financial statements.

FIVE9, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(Unaudited, in thousands, except per share data)

	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Revenue	$ 99,792	$ 77,436	$ 194,880	$ 151,974
Cost of revenue	42,453	31,248	82,490	62,099
Gross profit	57,339	46,188	112,390	89,875
Operating expenses:				
Research and development	17,208	10,811	32,397	21,357
Sales and marketing	32,231	23,250	62,391	44,951
General and administrative	16,129	12,042	30,787	23,804
Total operating expenses	65,568	46,103	125,575	90,112
Income (loss) from operations	(8,229)	85	(13,185)	(237)
Other income (expense), net:				
Interest expense	(5,734)	(3,406)	(9,218)	(6,802)
Interest income and other	(4,965)	1,490	(3,893)	3,235
Total other income (expense), net	(10,699)	(1,916)	(13,111)	(3,567)
Loss before income taxes	(18,928)	(1,831)	(26,296)	(3,804)
Provision for (benefit from) income taxes	(2,876)	29	(2,807)	(20)
Net loss	$ (16,052)	$ (1,860)	$ (23,489)	$ (3,784)
Net loss per share:				
Basic and diluted	$ (0.25)	$ (0.03)	$ (0.38)	$ (0.06)
Shares used in computing net loss per share:				
Basic and diluted	63,282	60,058	62,494	59,714
Comprehensive Loss:				
Net loss	$ (16,052)	$ (1,860)	$ (23,489)	$ (3,784)
Other comprehensive income (loss)	(626)	65	428	239
Comprehensive loss	$ (16,678)	$ (1,795)	$ (23,061)	$ (3,545)

See accompanying notes to the unaudited condensed consolidated financial statements.

FIVE9, INC.

CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY
(In thousands)

	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balance as of March 31, 2019	59,637	$ 60	$ 303,946	$ 81	$ (153,421)	$ 150,666
Issuance of common stock upon exercise of stock options	444	1	3,266	—	—	3,267
Issuance of common stock upon vesting of restricted stock units	429	—	—	—	—	—
Issuance of common stock under ESPP	109	—	3,996	—	—	3,996
Stock-based compensation	—	—	10,436	—	—	10,436
Other comprehensive income	—	—	—	65	—	65
Net loss	—	—	—	—	(1,860)	$ (1,860)
Balance as of June 30, 2019	60,619	$ 61	$ 321,644	$ 146	$ (155,281)	$ 166,570
Balance as of March 31, 2020	61,992	$ 62	$ 368,260	$ 1,630	$ (163,486)	$ 206,466
Equity component of issuance of the 2025 convertible senior notes, net of issuance costs	—	—	154,363	—	—	154,363
Purchase of capped calls related to the 2025 convertible senior notes	—	—	(90,448)	—	—	(90,448)
Equity component from conversion of the 2023 convertible senior notes	—	—	(293,809)	—	—	(293,809)
Issuance of common stock upon partial conversion of the 2023 convertible senior notes	2,724	3	268,570	—	—	268,573
Issuance of common stock upon exercise of stock options	161	—	3,484	—	—	3,484
Issuance of common stock upon vesting of restricted stock units	316	—	—	—	—	—
Issuance of common stock under ESPP	103	—	5,666	—	—	5,666
Stock-based compensation	—	—	16,791	—	—	16,791
Other comprehensive loss	—	—	—	(626)	—	(626)
Net loss	—	—	—	—	(16,052)	(16,052)
Balance as of June 30, 2020	65,296	$ 65	$ 432,877	$ 1,004	$ (179,538)	$ 254,408

See accompanying notes to the unaudited condensed consolidated financial statements.

FIVE9, INC.

CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY
(In thousands)

	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balance as of December 31, 2018	59,210	$ 59	$ 294,279	$ (93)	$ (151,497)	$ 142,748
Issuance of common stock upon exercise of stock options	660	2	4,247	—	—	4,249
Issuance of common stock upon vesting of restricted stock units	640	—	—	—	—	—
Issuance of common stock under ESPP	109	—	3,996	—	—	3,996
Stock-based compensation	—	—	19,122	—	—	19,122
Other comprehensive income	—	—	—	239	—	239
Net loss	—	—	—	—	(3,784)	$ (3,784)
Balance as of June 30, 2019	60,619	$ 61	$ 321,644	$ 146	$ (155,281)	$ 166,570
Balance as of December 31, 2019	61,544	$ 61	$ 351,870	$ 576	$ (156,049)	$ 196,458
Equity component of issuance of the 2025 convertible senior notes, net of issuance costs	—	—	154,363	—	—	154,363
Purchase of capped calls related to the 2025 convertible senior notes	—	—	(90,448)	—	—	(90,448)
Equity component from conversion of the 2023 convertible senior notes	—	—	(293,809)	—	—	(293,809)
Issuance of common stock upon partial conversion of the 2023 convertible senior notes	2,724	3	268,570	—	—	268,573
Issuance of common stock upon exercise of stock options	321	—	6,080	—	—	6,080
Issuance of common stock upon vesting of restricted stock units	604	1	—	—	—	1
Issuance of common stock under ESPP	103	—	5,666	—	—	5,666
Stock-based compensation	—	—	30,585	—	—	30,585
Other comprehensive income	—	—	—	428	—	428
Net loss	—	—	—	—	(23,489)	(23,489)
Balance as of June 30, 2020	65,296	$ 65	$ 432,877	$ 1,004	$ (179,538)	$ 254,408

See accompanying notes to the unaudited condensed consolidated financial statements.

FIVE9, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited, in thousands)

	Six Months Ended	
	June 30, 2020	June 30, 2019
Cash flows from operating activities:		
Net loss	$ (23,489)	$ (3,784)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Depreciation and amortization	11,213	6,553
Amortization of operating lease right-of-use assets	2,786	2,147
Amortization of premium on marketable investments	630	(883)
Provision for doubtful accounts	353	30
Stock-based compensation	30,585	19,122
Gain on sale of convertible note held for investment	—	(217)
Amortization of discount and issuance costs on convertible senior notes	8,571	6,234
Loss on early extinguishment of debt	5,794	—
Tax benefit of valuation allowance associated with an acquisition	(2,910)	—
Others	82	(23)
Changes in operating assets and liabilities:		
Accounts receivable	(2,119)	(3,378)
Prepaid expenses and other current assets	(7,065)	(4,053)
Deferred contract acquisition costs	(11,848)	(5,488)
Other assets	(1,604)	(12,571)
Accounts payable	2,553	159
Accrued and other current liabilities	9,561	6,516
Accrued federal fees and sales tax liability	(945)	(337)
Deferred revenue	3,292	2,539
Other liabilities	(281)	5,412
Net cash provided by operating activities	25,159	17,978
Cash flows from investing activities:		
Purchases of marketable investments	(460,899)	(151,308)
Proceeds from maturities of marketable investments	167,850	165,354
Purchases of property and equipment	(14,891)	(8,226)
Cash paid to acquire Virtual Observer	(28,313)	—
Cash paid to acquire substantially all of the assets of Whendu LLC	(100)	—
Proceeds from sale of convertible note held for investment	—	217
Net cash (used in) provided by investing activities	(336,353)	6,037
Cash flows from financing activities:		
Proceeds from issuance of 2025 convertible senior notes, net of issuance costs	728,812	—
Payments for capped call transactions related to the 2025 convertible senior notes	(90,448)	—
Repurchase of a portion of 2023 convertible senior notes, net of costs	(181,462)	—
Proceeds from exercise of common stock options	6,080	4,248
Proceeds from sale of common stock under ESPP	5,666	3,996
Payments of finance leases	(2,195)	(3,702)
Net cash provided by financing activities	466,453	4,542
Net increase in cash and cash equivalents	155,259	28,557
Cash and cash equivalents:		
Beginning of period	77,976	81,912
End of period	$ 233,235	$ 110,469
Supplemental disclosures of cash flow data:		
Cash paid for interest	$ 305	$ 590
Cash paid for income taxes	$ 141	$ 153
Non-cash investing and financing activities:		
Equipment purchased and unpaid at period-end	$ 2,838	$ 1,602
Capitalization of leasehold improvement through non-cash lease incentive	$ —	$ 42
Acquisition and related transaction costs accrued at period-end	$ 3,700	$ —

See accompanying notes to the unaudited condensed consolidated financial statements.

FIVE9, INC.

Notes to Condensed Consolidated Financial Statements (Unaudited)

1. Description of Business and Summary of Significant Accounting Policies

Five9, Inc. and its wholly-owned subsidiaries (the “Company”) is a provider of cloud software for contact centers. The Company was incorporated in Delaware in 2001 and is headquartered in San Ramon, California. The Company has offices in Europe and Asia, which primarily provide research, development, sales, marketing, and client support services.

Basis of Presentation

The accompanying condensed consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States (“GAAP”) and applicable rules and regulations of the Securities and Exchange Commission (“SEC”) regarding interim financial reporting. Certain information and note disclosures normally included in financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to such rules and regulations. Therefore, these condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2019. In the opinion of management, the condensed consolidated financial statements reflect all adjustments, which are normal and recurring in nature, necessary for fair financial statement presentation. All intercompany transactions and balances have been eliminated in consolidation.

Certain prior period amounts included in the condensed consolidated financial statements have been reclassified to conform to the current period presentation.

Use of Estimates

The preparation of condensed consolidated financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. The significant estimates made by management affect revenue and related reserves. Management periodically evaluates such estimates and they are adjusted prospectively based upon such periodic evaluation. Actual results could differ from those estimates.

Significant Accounting Policies

The Company’s significant accounting policies are disclosed in its Annual Report on Form 10-K for the year ended December 31, 2019.

Recently Adopted Accounting Pronouncements

In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments (“ASU 2016-13”), which requires measurement and recognition of expected credit losses for financial assets held at amortized cost, including trade receivables. ASU 2016-13 replaces the existing incurred loss impairment model with an expected loss model that requires the forward-looking information to calculate credit loss estimates. It also eliminates the concept of other-than-temporary impairment and requires credit losses related to available-for-sale debt securities to be recorded through an allowance for credit losses rather than as a reduction in the amortized cost basis of the securities. These changes will result in more timely recognition of credit losses. The Company adopted ASU 2016-13 using the modified retrospective method on January 1, 2020. The adoption of ASU 2016-13 did not have a material impact on the Company’s consolidated financial position, operating results or cash flows. See Notes 3 and 4 for further information on the impact of this adoption.

Recent Accounting Pronouncements Not Yet Effective

In December 2019, the FASB issued ASU No. 2019-12, Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes (“ASU 2019-12”), which amends its guidance to simplify the accounting for income taxes by, among other provisions, removing exceptions to certain general principles in Topic 740, Income Taxes. The standard will be effective for the Company beginning in the first quarter of 2021, with early adoption permitted.

The Company is currently evaluating the impact that the adoption of ASU 2019-12 will have on its consolidated financial statements.

The Company has reviewed or is in the process of evaluating all other issued, but not yet effective, accounting pronouncements and does not believe the future adoption of any such accounting pronouncements will cause a material impact on its consolidated financial position, operating results or cash flows.

2. Revenue

Contract Balances

The following table provides information about accounts receivable, net, deferred contract acquisition costs, contract assets and contract liabilities from contracts with customers (in thousands):

	June 30, 2020	December 31, 2019
Accounts receivable, net	$ 39,607	$ 37,655
Deferred contract acquisition costs:		
Current	$ 16,151	$ 13,014
Non-current	39,366	30,655
Total deferred contract acquisition costs	$ 55,517	$ 43,669
Contract assets and contract liabilities:		
Contract assets (included in prepaid expenses and other current assets)	$ 771	$ 825
Contract liabilities (deferred revenue)	26,306	24,681
Contract liabilities (deferred revenue) (included in other long-term liabilities)	3,701	1,550
Net contract liabilities	$ (29,236)	$ (25,406)

The Company receives payments from customers based upon billing cycles. Invoice payment terms are usually 30 days or less. Accounts receivable are recorded when the right to consideration becomes unconditional.

Deferred contract acquisition costs are recorded when incurred and are amortized over a customer benefit period of five years.

The Company's contract assets consist of unbilled amounts typically resulting from professional services revenue recognition when it exceeds the total amounts billed to the customer. The Company's contract liabilities consist of advance payments and billings in excess of revenue recognized.

In the three and six months ended June 30, 2020, the Company recognized revenue of $4.0 million and $20.0 million, respectively, related to its contract liabilities at December 31, 2019.

Remaining Performance Obligations

As of June 30, 2020, the aggregate amount of the total transaction price allocated in contracts with original duration of greater than one year to the remaining performance obligations was $242.0 million. The Company expects to recognize revenue on approximately four-fifths of the remaining performance obligation over the next 24 months, with the balance recognized thereafter. The Company has elected the optional exemption, which allows for the exclusion of the amounts for remaining performance obligations that are part of contracts with an original expected duration of one year or less. Such remaining performance obligations represent unsatisfied or partially unsatisfied performance obligations pursuant to ASC 606.

3. Investments and Fair Value Measurements

Marketable Investments

The Company's marketable investments have been classified and accounted for as available-for-sale. The Company's marketable investments as of June 30, 2020 and December 31, 2019 were as follows (in thousands):

	June 30, 2020			
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Short-term Marketable Investments:				
Certificates of deposit	$ 3,976	$ 1	$ —	$ 3,977
U.S. treasury	283,830	217	(9)	284,038
U.S. agency securities	136,087	275	(3)	136,359
Commercial paper	5,387	—	—	5,387
Municipal bonds	7,454	4	—	7,458
Corporate bonds	15,483	14	(8)	15,489
Total	$ 452,217	$ 511	$ (20)	$ 452,708
Long-term Marketable Investments:				
U.S. treasury	$ 40,005	$ —	$ (8)	$ 39,997
U.S. agency securities	40,273	9	—	40,282
Corporate bonds	1,783	2	—	1,785
Total	$ 82,061	$ 11	$ (8)	$ 82,064

	December 31, 2019			
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Short-term Marketable Investments:				
Certificates of deposit	$ 161	$ 1	$ —	$ 162
U.S. treasury	31,933	8	(1)	31,940
U.S. agency securities	177,629	110	(9)	177,730
Commercial paper	15,240	—	—	15,240
Municipal bonds	3,014	1	—	3,015
Corporate bonds	13,876	10	—	13,886
Total	$ 241,853	$ 130	$ (10)	$ 241,973

The following table presents the gross unrealized losses and the fair value for those marketable investments that were in an unrealized loss position for less than 12 months as of June 30, 2020 and December 31, 2019 (in thousands):

	June 30, 2020		December 31, 2019	
	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value
U.S. treasury	$ (17)	$ 174,600	$ (1)	$ 12,926
U.S. agency securities	(4)	56,328	(9)	36,322
Municipal bonds	(1)	512		
Corporate bonds	(8)	5,127	—	251
Total	$ (30)	$ 236,567	$ (10)	$ 49,499

Although the Company had certain available-for-sale debt securities in an unrealized loss position as of June 30, 2020, no impairment loss was recorded since it did not intend to sell them, did not anticipate a need to sell them, and the decline in fair value was not due to any credit-related factors, which it is now required to assess upon adoption of ASU 2016-13.

The amortized cost and fair value of the Company’s marketable investments by contractual maturity as of June 30, 2020 were as follows:

	Cost	Fair Value
Due within one year	$ 452,217	$ 452,708
Due after one year through two years	82,061	82,064
Total	$ 534,278	$ 534,772

Fair Value Measurements

The Company carries cash equivalents and marketable investments at fair value. Fair value is based on the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is estimated by applying the following hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement:

Level 1 — Observable inputs, which include unadjusted quoted prices in active markets for identical assets or liabilities.

Level 2 — Observable inputs other than Level 1 inputs, such as 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.

Level 3 — Unobservable inputs that are supported by little or no market activity and that are based on management’s assumptions, including fair value measurements determined by using pricing models, discounted cash flow methodologies or similar techniques.

The Company determined the fair value of its Level 1 financial instruments, which are traded in active markets, using quoted market prices for identical instruments.

Marketable investments classified within Level 2 of the fair value hierarchy are valued based on other observable inputs, including broker or dealer quotations or alternative pricing sources. When quoted prices in active markets for identical assets or liabilities are not available, the Company relies on non-binding quotes from its investment managers, which are based on proprietary valuation models of independent pricing services. These models generally use inputs such as observable market data, quoted market prices for similar instruments, historical pricing trends of a security as relative to its peers. To validate the fair value determination provided by its investment managers, the Company reviews the pricing movement in the context of overall market trends and trading information from its investment managers. The Company performs routine procedures such as comparing prices obtained from independent source to ensure that appropriate fair values are recorded.

The following tables set forth the Company’s assets measured at fair value by level within the fair value hierarchy (in thousands):

	June 30, 2020			
	Level 1	Level 2	Level 3	Total
Assets				
Cash equivalents				
Money market funds	$ 54,325	$ —	$ —	$ 54,325
U.S. treasury	110,979	—	—	110,979
Municipal bonds	—	1,457	—	1,457
Total cash equivalents	$ 165,304	$ 1,457	$ —	$ 166,761
Marketable investments (Short and Long-term)				
Certificates of deposit	$ —	$ 3,977	$ —	$ 3,977
U.S. treasury	324,036	—	—	324,036
U.S. agency securities	—	176,640	—	176,640
Commercial paper	—	5,387	—	5,387
Municipal bonds	—	7,458	—	7,458
Corporate bonds	—	17,274	—	17,274
Total marketable investments	$ 324,036	$ 210,736	$ —	$ 534,772

	December 31, 2019			
	Level 1	Level 2	Level 3	Total
Assets				
Cash equivalents				
Money market funds	$ 2,179	$ —	$ —	$ 2,179
Commercial paper	—	2,697	—	2,697
Total cash equivalents	$ 2,179	$ 2,697	$ —	$ 4,876
Marketable investments				
Certificates of deposit	$ —	$ 162	$ —	$ 162
U.S. treasury	31,940	—	—	31,940
U.S. agency securities	—	177,730	—	177,730
Commercial paper	—	15,240	—	15,240
Municipal bonds	—	3,015	—	3,015
Corporate bonds	—	13,886	—	13,886
Total marketable investments	$ 31,940	$ 210,033	$ —	$ 241,973

As of June 30, 2020 and December 31, 2019, the estimated fair value of the Company’s outstanding 0.125% convertible senior notes due 2023 (the "2023 convertible senior notes") was $210.7 million and $437.0 million, respectively. As of June 30, 2020, the estimated fair value of the Company's outstanding 0.500% convertible senior notes due 2025 (the "2025 convertible senior notes" and, together with the 2023 convertible senior notes, the "convertible senior notes") was $802.4 million. The fair values were determined based on the quoted price of the convertible senior notes in an inactive market on the last trading day of the reporting period and has been classified as Level 2 in the fair value hierarchy. See Note 6 for further information on the Company’s convertible senior notes.

There were no assets or liabilities measured at fair value on a non-recurring basis as of June 30, 2020 and December 31, 2019.

The Company’s other financial instruments’ fair value, including accounts receivable, accounts payable and other current liabilities, approximate its carrying value due to the relatively short maturity of those instruments. The carrying amounts of the Company’s finance leases approximate their fair value, which is the present value of expected future cash payments based on assumptions about current interest rates and the creditworthiness of the Company.

4. Financial Statement Components

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

	June 30, 2020	December 31, 2019
Cash	$ 66,474	$ 73,100
Money market funds	54,325	2,179
U.S. treasury	110,979	—
Commercial paper	—	2,697
Municipal bonds	1,457	—
Total cash and cash equivalents	$ 233,235	$ 77,976

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

	June 30, 2020	December 31, 2019
Trade accounts receivable	$ 35,887	$ 34,591
Unbilled trade accounts receivable, net of advance client deposits	3,835	3,075
Allowance for doubtful accounts	(115)	(11)
Accounts receivable, net	$ 39,607	$ 37,655

The Company's adoption of ASU 2016-13 on January 1, 2020 required it to shift from an incurred loss impairment model to an expected credit loss model, which requires it to consider historical loss rates and expectations of forward-looking losses to estimate its allowance for doubtful accounts on its trade accounts receivables, unbilled accounts receivables and contract assets. The adoption of this new standard resulted in an increase to the allowance for doubtful accounts reserve of $0.1 million and $0.3 million during the three and six months ended June 30, 2020, respectively. The following table presents the change in the allowance for doubtful accounts, including consideration of expected credit losses, for the three and six months ended June 30, 2020 (in thousands):

	Three Months Ended	Six Months Ended
	June 30, 2020	June 30, 2020
Balance, beginning of period	$ (168)	$ (11)
Add: Bad debt expense (excluding expected credit loss portion)	(23)	(45)
Add: Bad debt expense (expected credit loss portion)	(74)	(307)
Less: Write-offs, net of recoveries (excluding expected credit loss portion)	18	29
Less: Write-offs, net of recoveries (expected credit loss portion)	$ 132	$ 219
Balance, end of period	$ (115)	$ (115)

Prepaid expenses and other current assets consisted of the following (in thousands):

	June 30, 2020	December 31, 2019
Prepaid expenses	$ 10,071	$ 4,901
Other current assets	6,687	4,930
Contract assets	771	825
Prepaid expenses and other current assets	$ 17,529	$ 10,656

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

	June 30, 2020	December 31, 2019
Computer and network equipment	$ 77,828	$ 67,378
Computer software	18,301	14,157
Internal-use software development costs	500	500
Furniture and fixtures	2,869	2,918
Leasehold improvements	2,090	2,264
Property and equipment	101,588	87,217
Accumulated depreciation and amortization	(61,789)	(54,027)
Property and equipment, net	$ 39,799	$ 33,190

Depreciation and amortization expense associated with property and equipment was $4.5 million and $8.4 million for the three and six months ended June 30, 2020, respectively, and $3.3 million and $6.4 million for the three and six months ended June 30, 2019, respectively.

Property and equipment capitalized under finance lease obligations consists primarily of computer and network equipment and was as follows (in thousands):

	June 30, 2020	December 31, 2019
Gross	$ 46,520	$ 46,671
Less: accumulated depreciation and amortization	(41,539)	(39,190)
Total	$ 4,981	$ 7,481

Accrued and other current liabilities consisted of the following (in thousands):

	June 30, 2020	December 31, 2019
Accrued compensation and benefits	$ 24,974	$ 14,233
Accrued expenses	9,843	4,152
Accrued and other current liabilities	$ 34,817	$ 18,385

5. Goodwill and Intangible Assets

Goodwill of $22.6 million and intangible assets of $12.8 million were recorded as a result of the Company's acquisition of Virtual Observer, formerly Coordinated Systems, Inc., in April 2020. See Note 13 for further details. The following table summarizes the activity in the Company's goodwill and intangible asset balances during the six months ended June 30, 2020 (in thousands):

	Goodwill	Intangible Assets
Beginning of the period, December 31, 2019	$ 11,798	$ 15,533
Addition (Virtual Observer)	22,646	12,800
Addition (Whendu)	—	100
Amortization	—	(2,828)
End of the period, June 30, 2020	$ 34,444	$ 25,605

The components of intangible assets were as follows (in thousands):

	June 30, 2020				December 31, 2019			
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Weighted Average Remaining Amortization period (Years)	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Weighted Average Remaining Amortization period (Years)
Developed technology	$ 30,075	$ (5,404)	$ 24,671	4.0	$ 17,777	$ (2,690)	$ 15,087	3.9
Acquired workforce	470	(99)	371	2.4	467	(21)	446	2.9
Customer relationships	500	(25)	475	4.8	—	—	—	
Trademarks	100	(12)	88	1.8	—	—	—	
Total	$ 31,145	$ (5,540)	$ 25,605	4.0	$ 18,244	$ (2,711)	$ 15,533	3.8

Amortization expense for intangible assets was $1.7 million and $2.8 million during the three and six months ended June 30, 2020, respectively, and $0.1 million and $0.2 million during the three and six months ended June 30, 2019. The increase in amortization expense during the three and six months ended June 30, 2020 was due to the acquisition of intangible assets from Whendu LLC ("Whendu") in November 2019 and from Virtual Observer in April 2020.

As of June 30, 2020, the expected future amortization expense for intangible assets was as follows (in thousands):

Period	Expected Future Amortization Expense
Remaining 2020	$ 3,404
2021	6,600
2022	6,542
2023	5,883
2024	2,540
Thereafter	636
Total	$ 25,605

6. Debt

0.500% Convertible Senior Notes and Related Capped Call Transactions

In May and June 2020, the Company issued $747.5 million aggregate principal amount of the 2025 convertible senior notes in a private offering, which aggregate principal amount included the exercise in full of the initial purchasers’ option to purchase up to an additional $97.5 million principal amount of the 2025 convertible senior notes. The 2025 convertible senior notes mature on June 1, 2025 and bear interest at a fixed rate of 0.500% per annum, payable semiannually in arrears on June 1 and December 1 of each year, beginning on December 1, 2020. The total net proceeds from the issuance of the 2025 convertible senior notes, after deducting initial purchasers' discounts and commissions and estimated debt issuance costs, were approximately $728.8 million.

Each $1,000 principal amount of the 2025 convertible senior notes is initially convertible into 7.4437 shares of the Company’s common stock (the “2025 Conversion Option”), which is equivalent to an initial conversion price of approximately $134.34 per share of common stock, subject to adjustment upon the occurrence of specified events. The initial conversion price represents a premium of approximately 30% to the $103.34 per share closing price of the Company’s common stock on The Nasdaq Global Market on May 21, 2020. The 2025 convertible senior notes are convertible, in multiples of $1,000 principal amount, at the option of the holders prior to the close of business on the business day immediately preceding March 1, 2025, only under the following circumstances: (1) during any calendar quarter commencing after the calendar quarter ending on September 30, 2020 (and only during such calendar quarter), if the last reported sale price of the Company’s 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 on each applicable trading day; (2) during the five business day period after any five consecutive trading day period (the “2025 Measurement Period”) in which the trading price (as defined in the 2025 Indenture governing the 2025 convertible senior notes) per $1,000 principal amount of the 2025 convertible senior notes for each trading day of the 2025 Measurement Period was less than 98% of the product of the last reported sale price of the Company’s common stock and the conversion rate in effect on each such trading day; (3) if the Company calls any or all of the 2025 convertible senior notes for redemption, at any time prior to the close of business on the second scheduled trading day immediately preceding the redemption date; or (4) upon the occurrence of specified corporate events. On or after March 1, 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 2025 convertible senior notes, in multiples of $1,000 principal amount, at the option of the holder regardless of the foregoing circumstances.

Upon conversion, the Company will pay or deliver, as the case may be, cash, shares of the Company’s common stock or a combination of cash and shares of the Company’s common stock, at the Company’s election. If the Company undergoes a fundamental change (as defined in the indenture governing the 2025 convertible senior notes), subject to certain conditions, holders may require the Company to repurchase for cash all or any portion of their 2025 convertible senior notes, in principal amounts of $1,000 or a multiple thereof, at a fundamental change repurchase price equal to 100% of the principal amount of the 2025 convertible senior notes to be repurchased, plus accrued and unpaid interest, if any, to, but excluding, the fundamental change repurchase date. In addition, following certain corporate events or if the Company issues a notice of redemption, it will, under certain circumstances, increase the conversion rate for holders who elect to convert their notes in connection with such corporate event or during the relevant redemption period.

The closing market price of the Company's common stock of $110.67 per share as of June 30, 2020, the last trading day during the three months ended June 30, 2020, was below $174.64 per share, which represents 130% of the initial conversion price of $134.34 per share. Additionally, the last reported sale price of the Company’s 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, June 30, 2020, was not greater than or equal to 130% of the initial conversion price. As such, during the three months ended June 30, 2020, the conditions allowing holders of the 2025 convertible senior notes to convert were not met. The 2025 convertible senior notes were therefore not convertible during the three months ended June 30, 2020.

The Company may not redeem the 2025 convertible senior notes prior to June 6, 2023. The Company may redeem for cash all or any portion of the 2025 convertible senior notes, at its option, on or after June 6, 2023 and prior to March 1, 2025 if the last reported sale price of its common stock has been at least 130% of the conversion price 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 not more than two trading days immediately preceding the date on which the Company provides notice of redemption at a redemption price equal to 100% of the principal amount of the 2025 convertible senior notes to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date. No sinking fund is provided for the 2025 convertible senior notes.

The 2025 convertible senior notes are the Company's senior unsecured obligations and will rank senior in right of payment to any of the Company's indebtedness that is expressly subordinated in right of payment to the 2025 convertible senior notes; equal in right of payment to any of the Company's unsecured indebtedness that is not so subordinated (including the 2023 convertible senior notes); effectively junior in right of payment to any of the Company's secured indebtedness to the extent of the value of the assets securing such indebtedness; and structurally junior to all indebtedness and other liabilities (including trade payables) of the Company's subsidiaries.

In accounting for the issuance of the 2025 convertible senior notes, the 2025 convertible senior notes were separated into liability and equity components. The carrying amount of the liability component was calculated by measuring the fair value of a similar debt instrument that does not have an associated conversion feature. The carrying amount of the equity component representing the 2025 Conversion Option was $158.3 million and was determined by deducting the fair value of the liability component from the par value of the 2025 convertible senior notes. The equity component was recorded in additional paid-in-capital and is not re-measured as long as it continues to meet the conditions for equity classification. The excess of the principal amount of the liability component over its carrying amount (the "Debt Discount") is being amortized to interest expense over the contractual term of the notes at an effective interest rate of 5.76%. The debt component was classified as long term liabilities during the three months ended June 30, 2020.

In accounting for the debt issuance costs of $18.7 million related to the 2025 convertible senior notes, the Company allocated the total amount incurred to the liability and equity components of the 2025 convertible senior notes based on their relative values. Issuance costs attributable to the liability component were $14.7 million and are being amortized to interest expense using the effective interest method over the contractual term of the 2025 convertible senior notes. Issuance costs attributable to the equity component were netted with the equity component in additional paid-in-capital.

The net carrying amount of the liability component of the 2025 convertible senior notes was as follows (in thousands):

	June 30, 2020
Principal	$ 747,500
Unamortized debt discount	(155,792)
Unamortized issuance costs	(14,494)
Net carrying amount	$ 577,214

The net carrying amount of the equity component of the 2025 convertible senior notes was as follows (in thousands):

	June 30, 2020
Equity component	$ 158,321
Issuance costs	(3,958)
Net carrying amount	$ 154,363

Interest expense related to the 2025 convertible senior notes was as follows (in thousands):

	Three Months Ended June 30, 2020
Contractual interest expense	$ 362
Amortization of debt discount	2,528
Amortization of issuance costs	235
Total interest expense	$ 3,125

In connection with the issuance of the 2025 convertible senior notes, the Company entered into privately negotiated capped call transactions (the "2025 Capped Call Transactions") with certain financial institutions. The 2025 Capped Call Transactions are expected generally to reduce the potential dilution to the Company's common stock in connection with any conversion of the 2025 convertible senior notes and/or offset any cash payments the Company is required to make in excess of the principal amount of converted 2025 convertible senior notes, as the case may be, with such reduction and/or offset subject to a cap based on the cap price. The initial cap price of the 2025 Capped Call Transactions was $206.68 per share, and is subject to certain adjustments under the terms of the 2025 Capped Call Transactions. The 2025 Capped Call Transactions cover, subject to anti-dilution adjustments, approximately 5.6 million shares of the Company's common stock. For accounting purposes, the 2025 Capped Call Transactions are separate transactions, and not integrated with the issuance of the 2025 convertible senior notes. As these transactions meet certain accounting criteria, the 2025 Capped Call Transactions are recorded in stockholders' equity and are not accounted for as derivatives. The cost to the Company of the 2025 Capped Call Transactions was $90.5 million, which was recorded as a reduction to additional paid-in capital.

The net impact to the Company's stockholders' equity as of June 30, 2020, included in additional paid-in capital, relating to the issuance of the 2025 convertible senior notes was as follows (in thousands):

	June 30, 2020
Conversion option	$ 158,321
Payments for capped call transactions	(90,448)
Issuance costs	(3,958)
Total	$ 63,915

Maturity of the Company's 2025 convertible senior notes as of June 30, 2020 was as follows (in thousands):

Period	Amount to Mature
2025 (Maturity date of June 1, 2025)	$ 747,500
Total	$ 747,500

0.125% Convertible Senior Notes and Related Capped Call Transactions

In May 2018, the Company issued $258.8 million aggregate principal amount of 2023 convertible senior notes in a private offering. The 2023 convertible senior notes mature on May 1, 2023 and bear interest at a fixed rate of 0.125% per annum, payable semiannually in arrears on May 1 and November 1 of each year. The total net proceeds from the offering, after deducting initial purchasers' discounts and commissions and estimated debt issuance costs, was approximately $250.8 million.

In May 2020, the Company used part of the net proceeds from the issuance of the 2025 convertible senior notes to repurchase, exchange or otherwise retire approximately $181.0 million aggregate principal amount of the 2023 convertible senior notes in privately-negotiated transactions for aggregate consideration of $449.6 million, consisting of $181.0 million in cash and 2,723,581 shares of the Company's common stock (the "2023 Note Repurchase Transactions").

As of June 30, 2020, after giving effect to the 2023 Note Repurchase Transactions, approximately $77.7 million aggregate principal amount of 2023 convertible senior notes remained outstanding.

The 2023 Note Repurchase Transactions were accounted for as a debt extinguishment. Pursuant to ASC Subtopic 470-20, total consideration for the 2023 Note Repurchase Transactions was separated into liability and equity components by estimating the fair value of a similar liability without a conversion option and assigning the residual value to the equity component. The gain or loss on extinguishment of the debt was subsequently determined by comparing the repurchase consideration allocated to the liability component to the sum of the carrying value of the liability component, net of the proportionate amounts of unamortized debt discount and the remaining unamortized debt issuance costs. Of the $449.6 million in aggregate consideration paid by the Company in connection with the 2023 Note Repurchase Transactions, $155.8 million and $293.8 million were allocated to the debt and equity components, respectively, using an effective interest rate of 5.32% to determine the fair value of the liability component. This interest rate was based on the income and market-based approaches used to determine the effective interest rate of the 2023 convertible senior notes, adjusted for the remaining term of the 2023 convertible senior notes. As of the settlement of the 2023 Note Repurchase Transactions, the carrying value of the 2023 convertible senior notes subject to the 2023 Note Repurchase Transactions, net of unamortized debt discount and issuance costs, was $150.4 million. The Company also incurred approximately $0.5 million in third party transaction costs related to the 2023 Note Repurchase Transactions. These costs were allocated to the liability and equity components in proportion to the allocation of consideration transferred at settlement and accounted for as debt extinguishment costs and equity reacquisition costs, respectively. The 2023 Note Repurchase Transactions resulted in a $5.8 million loss on early debt extinguishment in the second quarter of fiscal 2020, of which $2.7 million consisted of unamortized debt issuance costs.

Each $1,000 principal amount of the 2023 convertible senior notes was initially convertible into 24.4978 shares of the Company's common stock (the "2023 Conversion Option"), which is equivalent to an initial conversion price of approximately $40.82 per share of common stock, subject to adjustment upon the occurrence of specified events. The 2023 convertible senior notes are convertible, in multiples of $1,000 principal amount, at the option of the holders at any time prior to the close of business on the business day immediately preceding November 1, 2022, only under the following circumstances: (1) during any calendar quarter commencing after the calendar quarter ended on September 30, 2018 (and only during such calendar quarter), if the last reported sale price of the Company's 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 on each applicable trading day; (2) during the five business day period after any five consecutive trading day period (the "2023 Measurement Period") in which the trading price (as defined in the indenture governing the 2023 convertible senior notes) per $1,000 principal amount of the 2023 convertible senior notes for each trading day of the 2023 Measurement Period was less than 98% of the product of the last reported sale price of the Company's common stock and the conversion rate in effect on each such trading day; (3) if the Company calls any or all of the 2023 convertible senior notes for redemption, at any time prior to the close of business on the second scheduled trading day immediately preceding the redemption date; or (4) upon the occurrence of specified corporate events. On or after November 1, 2022 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 2023 convertible senior notes, in multiples of $1,000 principal amount, at the option of the holder regardless of the foregoing circumstances.

Upon conversion, the Company will pay or deliver, as the case may be, cash, shares of the Company's common stock or a combination of cash and shares of the Company's common stock, at the Company's election. If the Company undergoes a fundamental change (as defined in the indenture governing the 2023 convertible senior notes), subject to certain conditions, holders may require the Company to repurchase for cash all or any portion of their 2023 convertible senior notes, in principal amounts of $1,000 or a multiple thereof, at a fundamental change repurchase price equal to 100% of the principal amount of the 2023 convertible senior notes to be repurchased, plus accrued and unpaid interest, if any, to, but excluding, the fundamental change repurchase date. In addition, following certain corporate events that occur prior to the maturity date or if the Company issues a notice of redemption, it will, under certain circumstances, increase the conversion rate for holders who elect to convert their 2023 convertible senior notes in connection with such corporate event or during the relevant redemption period.

During each of the first and second quarters of 2020, one of the triggers for convertibility of the 2023 convertible senior notes was triggered as the last reported sale price of the Company's common stock was greater than $53.07 per share, which represents 130% of the initial conversion price of $40.82 per share, for at least 20 trading days in the period of 30 consecutive trading days ended on, and including, the last trading day of the quarter for each of the first and second quarters of 2020. As a result, the 2023 convertible senior notes were convertible, in multiples of $1,000 principal amount, at the option of the 2023 convertible senior note holders between April 1, 2020 to June 30, 2020, and are currently convertible between July 1, 2020 to September 30, 2020. Whether the 2023 convertible senior notes will be convertible after September 30, 2020 will depend on the continued satisfaction of this condition or other conversion conditions in the future. Through June 30, 2020, we settled aggregate principal amount of $5,000. In addition, the Company received elections to convert aggregate principal amount of $5,002,000 that remain unsettled as of the end of the second quarter of 2020. From July 1, 2020 through the date of this filing, the Company received additional elections to convert aggregate principal amount of $13,652,000. The Company has and expects to settle these conversions in cash or a combination of cash and shares during the second half of 2020. The Company has the option to settle any future election conversion notices in cash, shares, or a combination of cash and shares.

The Company may not redeem the 2023 convertible senior notes prior to May 5, 2021. The Company may redeem for cash all or any portion of the 2023 convertible senior notes, at its option, on or after May 5, 2021 if the last reported sale price of its common stock has been at least 130% of the conversion price 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 not more than two trading days immediately preceding the date on which the Company provides notice of redemption at a redemption price equal to 100% of the principal amount of the 2023 convertible senior notes to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date. No sinking fund is provided for the 2023 convertible senior notes.

The 2023 convertible senior notes are the Company's senior unsecured obligations and rank senior in right of payment to any of the Company's indebtedness that is expressly subordinated in right of payment to the 2023 convertible senior notes; equal in right of payment to any of the Company's unsecured indebtedness that is not so subordinated (including the 2025 convertible senior notes); effectively junior in right of payment to any of the Company's secured indebtedness to the extent of the value of the assets securing such indebtedness; and structurally junior to all indebtedness and other liabilities (including trade payables) of the Company's subsidiaries.

In accounting for the issuance of the 2023 convertible senior notes, the 2023 convertible senior notes were separated into liability and equity components. The carrying amount of the liability component was calculated by measuring the fair value of a similar debt instrument that does not have an associated conversion feature. The carrying amount of the equity component representing the conversion option was $63.8 million and was determined by deducting the fair value of the liability component from the par value of the 2023 convertible senior notes. The equity component was recorded in additional paid-in-capital and is not re-measured as long as it continues to meet the conditions for equity classification. The Debt Discount is being amortized to interest expense over the contractual term of the 2023 convertible senior notes at an effective interest rate of 6.39%.

In accounting for the debt issuance costs of $8.0 million related to the 2023 convertible senior notes, the Company allocated the total amount incurred to the liability and equity components of the 2023 convertible senior notes based on their relative values. Issuance costs attributable to the liability component were $6.0 million and are being amortized to interest expense using the effective interest method over the contractual term of the 2023 convertible senior notes. Issuance costs attributable to the equity component were netted with the equity component in additional paid-in-capital.

The net carrying amount of the liability component of the 2023 convertible senior notes was as follows (in thousands):

	June 30, 2020	December 31, 2019
Principal	$ 77,745	$ 258,750
Unamortized debt discount	(11,649)	(44,881)
Unamortized issuance costs	(1,107)	(4,265)
Net carrying amount	$ 64,989	$ 209,604

The net carrying amount of the equity component of the 2023 convertible senior notes continued to meet the conditions for equity classification as presented below (in thousands):

	June 30, 2020	December 31, 2019
Equity component	$ 19,158	$ 63,756
Issuance costs	(600)	(1,998)
Net carrying amount	$ 18,558	$ 61,758

Interest expense related to the 2023 convertible senior notes was as follows (in thousands):

	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Contractual interest expense	$ 60	$ 81	$ 141	$ 162
Amortization of debt discount	2,272	2,888	5,304	5,698
Amortization of issuance costs	216	267	504	536
Total interest expense	$ 2,548	$ 3,236	$ 5,949	$ 6,396

In connection with the issuance of the 2023 convertible senior notes, the Company entered into privately negotiated capped call transactions (the "2023 Capped Call Transactions") with certain financial institutions. The 2023 Capped Call Transactions are expected generally to reduce the potential dilution to the Company's common stock upon any conversion of the 2023 convertible senior notes and/or offset any cash payments the Company is required to make in excess of the principal amount of converted 2023 convertible senior notes, as the case may be, with such reduction and/or offset subject to a cap based on the cap price. The initial cap price of the 2023 Capped Call Transactions was $62.80 per share, and is subject to certain adjustments under the terms of the 2023 Capped Call Transactions. The 2023 Capped Call Transactions cover, subject to anti-dilution adjustments, approximately 6.3 million shares of the Company's common stock. For accounting purposes, the 2023 Capped Call Transactions are separate transactions, and not integrated with the issuance of the 2023 convertible senior notes. As these transactions meet certain accounting criteria, the 2023 Capped Call Transactions are recorded in stockholders' equity and are not accounted for as derivatives. The cost of $31.4 million incurred in connection with the 2023 Capped Call Transactions was recorded as a reduction to additional paid-in capital.

In connection with the 2023 Note Repurchase Transactions, the Company amended the 2023 Capped Call Transactions such that the portion associated with the 2023 convertible senior notes subject to the 2023 Note Repurchase Transactions would remain outstanding notwithstanding the retirement of $181.0 million aggregate principal amount of 2023 convertible senior notes. Following such amendment, the 2023 Capped Call Transactions continue to meet the accounting criteria to be recorded in stockholders' equity and are not accounted for as derivatives. Maturity of the Company's 2023 convertible senior notes as of June 30, 2020 was as follows (in thousands):

Period	Amount to Mature
2023 (Maturity date of May 1, 2023)	$ 77,745
Total	$ 77,745

7. Stockholders' Equity

Capital Structure

Common Stock

The Company is authorized to issue 450,000,000 shares of common stock with a par value of $0.001 per share. As of June 30, 2020 and December 31, 2019, the Company had 65,295,611 and 61,543,634 shares of common stock issued and outstanding, respectively. In May 2020, in connection with the 2023 Note Repurchase Transactions, the Company issued 2,723,581 shares of common stock. See Note 6 for further details.

Preferred Stock

The Company is authorized to designate and issue up to 5,000,000 shares of preferred stock with a par value of $0.001 per share in one or more series without stockholder approval and to fix the rights, preferences, privileges and restrictions thereof. As of June 30, 2020 and December 31, 2019, there were no shares of preferred stock issued and outstanding.

Common Stock Reserved for Future Issuance

Shares of common stock reserved for future issuance related to outstanding equity awards and employee equity incentive plans were as follows (in thousands):

	June 30, 2020
Stock options outstanding	2,431
Restricted stock units outstanding	2,753
Shares available for future grant under 2014 Plan	11,684
Shares available for future issuance under ESPP	2,598
Total shares of common stock reserved	19,466

Stock Options

A summary of the Company's stock option activity during the six months ended June 30, 2020 is as follows (in thousands, except years and per share data):

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value
Outstanding as of December 31, 2019	2,530	$ 19.38		
Options granted (weighted average grant date fair value of $33.39 per share)	227	73.25		
Options exercised	(322)	18.91		
Options forfeited or expired	(4)	36.70		
Outstanding as of June 30, 2020	2,431	$ 24.45	5.9	$ 209,602

The aggregate intrinsic value disclosed in the above table is computed based on the difference between the exercise price of the stock options and the fair market value of the Company's common stock of $110.67 per share as of June 30, 2020 for all in-the-money stock options outstanding.

Restricted Stock Units

A summary of the Company's restricted stock unit, or RSU, activity during the six months ended June 30, 2020 is as follows (in thousands, except per share data):

	Number of Shares	Weighted Average Grant Date Fair Value Per Share
Outstanding as of December 31, 2019	2,372	$ 41.32
RSUs granted	1,050	73.26
RSUs vested and released	(604)	37.97
RSUs forfeited	(65)	48.56
Outstanding as of June 30, 2020	2,753	$ 54.54

Stock-Based Compensation

Stock-based compensation expenses were as follows (in thousands):

	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Cost of revenue	$ 2,499	$ 1,658	$ 4,488	$ 2,887
Research and development	3,684	1,907	6,491	3,377
Sales and marketing	5,265	2,749	9,371	4,998
General and administrative	5,343	4,122	10,235	7,860
Total stock-based compensation	$ 16,791	$ 10,436	$ 30,585	$ 19,122

As of June 30, 2020, unrecognized stock-based compensation expense by award type and their expected weighted-average recognition periods are summarized in the following table (in thousands, except years).

	Stock Option	RSU	ESPP
Unrecognized stock-based compensation expense	$ 17,414	$ 141,383	$ 2,506
Weighted-average amortization period	2.9 years	3.1 years	0.4 years

The weighted-average assumptions used to value stock options granted during the periods presented were as follows:

Stock Options	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Expected term (years)	6.0	6.1	6.0	6.1
Volatility	48 %	46 %	47 %	46 %
Risk-free interest rate	0.4 %	2.4 %	1.1 %	2.5 %
Dividend yield [(1)]	—	—	—	—

(1) The Company has not paid, and does not anticipate paying, cash dividends on its shares of common stock. Accordingly, the expected dividend yield is zero.

8. Net Loss Per Share

Basic net loss per share is calculated by dividing net loss by the weighted average number of shares of common stock outstanding during the period, and excludes any dilutive effects of employee stock-based awards. Diluted net loss per share is computed giving effect to all potentially dilutive shares of common stock, including common stock issuable upon exercise of stock options, vesting of restricted stock units and shares of common stock issuable upon conversion of convertible senior notes.

The following table presents the calculation of basic and diluted net loss per share (in thousands, except per share data):

	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Net loss	$ (16,052)	$ (1,860)	$ (23,489)	$ (3,784)
Weighted-average shares of common stock outstanding	63,282	60,058	62,494	59,714
Basic and diluted net loss per share	$ (0.25)	$ (0.03)	$ (0.38)	$ (0.06)

The following securities were excluded from the calculation of diluted net loss per share because their effect would have been anti-dilutive (in thousands):

	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Stock options	2,431	2,693	2,431	2,693
Restricted stock units	2,753	2,598	2,753	2,598
Convertible senior notes	1,106	1,241	984	1,245
Total	6,290	6,532	6,168	6,536

The Company uses the treasury stock method for calculating any potential dilutive effect of the conversion spread of its convertible senior notes. The conversion spread had a dilutive impact for the 2023 convertible senior notes during the three and six months ended June 30, 2020 since the average market price of the Company’s common stock during the periods exceeded the initial conversion price of $40.82 per share. However, the potential shares of common stock issuable upon the conversion of the 2023 convertible senior notes were excluded from the calculation of diluted net loss per share because their effect would have been anti-dilutive. The conversion spread had an anti-dilutive impact for the 2025 convertible senior notes during the three months ended June 30, 2020 since the average market price of the Company’s common stock during the period was less than the initial conversion price of $134.34 per share.

9. Income Taxes

The (benefit from) income taxes for the three and six months ended June 30, 2020 was approximately $(2.9) million and $(2.8) million, respectively. The provision for (benefit from) income taxes for the three and six months ended June 30, 2019 was approximately $29 thousand and $(20) thousand, respectively. The (benefit from) income taxes for the three and six months ended June 30, 2020 consisted primarily of foreign income taxes, state minimum taxes, as well as a benefit for a true-up to foreign income taxes. The provision for (benefit from) income taxes for the three and six months ended June 30, 2019 consisted primarily of foreign income taxes and state minimum taxes.

For the three and six months ended June 30, 2020, the provision for income taxes differed from the statutory amount due to reduction in the valuation allowance resulting from the recording of deferred tax liabilities related to the Virtual Observer acquisition. For the three and six months ended June 30, 2019, the provision for (benefit from) income taxes differed from the statutory amount primarily due to the Company realizing no benefit for current year losses due to maintaining a full valuation allowance against its domestic net deferred tax assets.

The realization of tax benefits of deferred tax assets is dependent upon future levels of taxable income, of an appropriate character, in the periods the items are expected to be deductible or taxable. Based on the available objective evidence, the Company does not believe it is more likely than not that the net deferred tax assets will be realizable. Accordingly, the Company has provided a full valuation allowance against the domestic net deferred tax assets as of June 30, 2020 and December 31, 2019. The Company intends to maintain the remaining valuation allowance until sufficient positive evidence exists to support a reversal of, or decrease in, the valuation allowance. During the three and six months ended June 30, 2020, there were no material changes to the total amount of unrecognized tax benefits.

10. Commitments and Contingencies

Commitments

The Company's principal commitments consist of future payment obligations under its convertible senior notes, finance leases to finance data centers and other computer and networking equipment purchases, operating leases for office facilities, and agreements with third parties to provide co-location hosting, telecommunication usage and equipment maintenance services. These commitments as of December 31, 2019 are disclosed in the Company's Annual Report on Form 10-K for the year ended December 31, 2019, and did not change materially during the six months ended June 30, 2020, except for certain hosting and telecommunications agreements and the future payment obligations associated with the 2025 convertible senior notes, which were issued in May and June 2020, offset in part by the repurchase of a portion of the 2023 convertible senior notes in May 2020. As of June 30, 2020, the Company's commitment under various hosting and telecommunications agreements totaled $7.4 million for terms ranging up to 36 months. These agreements require the Company to make monthly payments over the service term in exchange for certain network services.

As of June 30, 2020, $825.2 million of aggregate principal of the convertible senior notes were outstanding. The 2023 convertible senior notes and the 2025 convertible senior notes are due on May 1, 2023 and June 1, 2025, respectively. See Note 6 for more information concerning the convertible senior notes.

Legal Matters

The Company is involved in various legal and regulatory matters arising in the normal course of business. In management's opinion, resolution of these matters is not expected to have a material impact on the Company's consolidated results of operations, cash flows, or its financial position. However, due to the uncertain nature of legal matters, an unfavorable resolution of a matter could materially affect the Company's future consolidated results of operations, cash flows or financial position in a particular period. The Company expenses legal fees as incurred.

Indemnification Agreements

In the ordinary course of business, the Company enters into agreements of varying scope and terms pursuant to which it agrees to indemnify clients, vendors, lessors, business partners and other parties with respect to certain matters, including, but not limited to, losses arising out of breach of such agreements, including breach of security, services to be provided by the Company or from intellectual property infringement claims made by third parties. In addition, the Company has entered into indemnification agreements with its directors, officers and certain employees that will require it, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors, officers or employees. There are no claims that it is aware of that could have a material effect on the consolidated balance sheet, consolidated statement of operations and comprehensive loss, or consolidated statements of cash flows.

11. Geographical Information

The following table summarizes revenues by geographic region based on client billing address and has been estimated based on the amounts billed to clients during the periods indicated (in thousands):

	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
United States	$ 91,784	$ 71,349	$ 179,215	$ 140,232
International	8,008	6,087	15,665	11,742
Total revenue	$ 99,792	$ 77,436	$ 194,880	$ 151,974

The following table summarizes total property and equipment, net in the respective locations (in thousands):

	June 30, 2020	December 31, 2019
United States	$ 35,152	$ 29,246
International	4,647	3,944
Property and equipment, net	$ 39,799	$ 33,190

12. Leases

The Company has leases for offices, data centers and computer and networking equipment that expire at various dates through 2024. The Company's leases have remaining terms of one to five years, some of the leases include a Company option to extend the leases for up to three to five years, and some of the leases include the option to terminate the leases upon 30-days notice.

The components of lease expenses were as follows (in thousands):

	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Operating lease cost	$ 1,515	$ 1,237	$ 3,031	$ 2,340
Finance lease cost:				
Amortization of right-of-use assets	$ 982	$ 1,905	$ 2,120	$ 3,360
Interest on finance lease liabilities	63	187	145	423
Total finance lease cost	$ 1,045	$ 2,092	$ 2,265	$ 3,783

Supplemental cash flow information related to leases was as follows (in thousands):

	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Cash paid for amounts included in the measurement of lease liabilities:				
Operating cash used in operating leases	$ (1,607)	$ (1,265)	$ (3,190)	$ (2,409)
Financing cash used in finance leases	(966)	(1,808)	(2,195)	(3,702)
Right of use assets obtained in exchange for lease obligations:				
Operating leases	364	4,619	4,256	4,619
Finance leases	—	—	—	—

Supplemental balance sheet information related to leases was as follows (in thousands):

	June 30, 2020	December 31, 2019
Operating leases		
Operating lease right-of-use assets	$ 10,006	$ 8,746
Operating lease liabilities	$ 5,247	$ 5,064
Operating lease liabilities — less current portion	5,249	4,329
Total operating lease liabilities	$ 10,496	$ 9,393
Finance leases		
Property and equipment, gross	$ 46,520	$ 46,671
Less: accumulated depreciation and amortization	(41,539)	(39,190)
Property and equipment, net	$ 4,981	$ 7,481
Finance lease liabilities:		
Finance leases	$ 2,032	$ 3,518
Finance lease liabilities — less current portion	100	809
Total finance lease liabilities	$ 2,132	$ 4,327

Weighted average remaining terms were as follows (in years):

	June 30, 2020	December 31, 2019
Weighted average remaining lease term		
Operating leases	2.6	2.7
Finance leases	1.0	1.1

Weighted average discount rates were as follows:

	June 30, 2020	December 31, 2019
Weighted average discount rate		
Operating leases	4.6 %	4.7 %
Finance leases	7.5 %	7.5 %

Maturities of lease liabilities were as follows (in thousands):

Year Ending December 31,	Operating Leases	Finance Leases
Remaining 2020	$ 3,285	$ 1,440
2021	3,451	787
2022	2,420	—
2023	1,288	—
2024	678	—
Total future minimum lease payments	11,122	2,227
Less: imputed interest	(626)	(95)
Total	$ 10,496	$ 2,132

13. Acquisitions

Virtual Observer

On April 1, 2020, the Company acquired all of the issued and outstanding shares of common stock of Virtual Observer, formerly Coordinated Systems, Inc., for cash consideration of approximately $32.2 million, subject to adjustment, pursuant to a stock purchase agreement by and among the Company and Robert H. Hutcheon, David R. Brower and Daniel J. McGrail, dated January 15, 2020. This acquisition, accounted for as a business combination, is intended to expand the Company's portfolio to include a cloud-based Workforce Optimization ("WFO") offering as a complement to its ongoing strategic partnerships with leading WFO providers.

The excess of the purchase price over identifiable intangible assets and net tangible assets in the amount of $22.6 million was allocated to goodwill, which is not deductible for tax purposes. The fair values assigned to assets acquired and liabilities assumed are based on management’s best estimates and assumptions as of the reporting date and are considered preliminary pending finalization of valuation analyses pertaining to intangible assets acquired, liabilities assumed and tax liabilities assumed including calculation of deferred tax assets and liabilities. During the measurement period, which may be up to one year from the acquisition date, the Company may record adjustments to the fair value of these tangible and intangible assets acquired and liabilities assumed, with the corresponding offset to goodwill. The measurement period will end no later than one year from the acquisition date. The following table presents the preliminary allocation of the purchase price at the acquisition date (in thousands):

Cash	$	168
Tangible assets acquired		200
Acquired technology		12,200
Customer relationships		500
Trade name and trademarks		100
Goodwill		22,646
Total assets acquired		35,814
Deferred tax liability		(2,910)
Liabilities assumed		(682)
Total	$	32,222

The acquired technology, customer relationships, and trade name and trademarks will be amortized on a straight-line basis over their estimated useful lives of 5 years, 5 years, and 2 years, respectively. The Company used the income approach to estimate the fair value of intangible assets acquired.

In connection with this acquisition, the Company incurred total acquisition-related transaction costs of $0.6 million and $0.8 million that have been expensed as incurred and included in general and administrative expenses in the condensed consolidated statements of operations during the three and six months ended June 30, 2020, respectively, and expensed an additional $0.3 million in fiscal 2019.

The results of operations of this acquisition are included in the accompanying condensed consolidated statements of operations from the date of acquisition.

Whendu LLC

In November 2019, the Company acquired certain assets from Whendu, including its integration platform as a service ("iPaaS") platform, which the Company has determined to be an asset acquisition. The purchase price, including the Company’s transaction costs, was approximately $15.9 million, of which $15.4 million was allocated to the Whendu iPaaS platform and $0.5 million was allocated to an assembled workforce, on a relative fair value basis. The assets are amortized on a straight-line basis over their useful lives of four and three years, respectively.

14. Subsequent Event

On July 29, 2020, the Company entered into the Bishop Ranch Building Lease (the “Lease”) with 2600 CR, LLC, a Delaware limited liability company (the “Landlord”). Pursuant to the Lease, the Company will lease from the Landlord approximately 104,253 square feet of office space located at 3001 Bishop Drive, Suites 250 and 350, San Ramon, CA (the “Premises”). The Company expects to use the Premises as its new corporate headquarters. The Lease will commence on February 1, 2021 and will continue for a period of 120 months. The initial monthly base rent will be approximately $0.4 million, with periodic increases in accordance with the terms of the Lease, with eight months of rent abatement. In addition, the Company will be required to pay its proportionate share of building operating costs. As part of the Lease, the Company must provide a security deposit of approximately $0.5 million. The Landlord will provide the Company with a tenant improvement allowance of approximately $4.2 million.

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

You should read the following discussion in conjunction with the condensed consolidated financial statements and notes thereto included elsewhere in this Quarterly Report on Form 10-Q and our Annual Report on Form 10-K for the year ended December 31, 2019.

Overview

We are a pioneer and leading provider of intelligent cloud software for contact centers, facilitating more than six billion call minutes between our more than 2,000 clients and their customers per year. We believe we achieved this leadership position through our expertise and technology, which has empowered us to help organizations of all sizes transition from legacy on-premise contact center systems to our cloud solution. Our solution, which is comprised of our Virtual Contact Center, or VCC, cloud platform and applications, allows simultaneous management and optimization of customer interactions across voice, chat, email, web, social media and mobile channels, either directly or through our application programming interfaces, or APIs. Our VCC cloud platform matches each customer interaction with an appropriate agent resource and delivers relevant customer data to the agent in real-time through integrations with adjacent enterprise applications, such as customer relationship management, or CRM, software, to optimize the customer experience and improve agent productivity. Unlike legacy on-premise contact center systems, our solution requires minimal up-front investment, can be rapidly deployed and adjusted depending on our client's requirements.

Since founding our business in 2001, we have focused exclusively on delivering cloud contact center software. We initially targeted smaller contact center opportunities with our telesales team and, over time, invested in expanding the breadth and depth of the functionality of our cloud platform to meet the evolving requirements of our clients. In 2009, we made a strategic decision to expand our market opportunity to include larger contact centers. This decision drove further investments in research and development and the establishment of our field sales team to meet the requirements of these larger contact centers. We believe this shift has helped us diversify our client base, while significantly enhancing our opportunity for future revenue growth. To complement these efforts, we have also focused on building client awareness and driving adoption of our solution through marketing activities, which include internet advertising, digital marketing campaigns, social media, trade shows, industry events, telemarketing and out of home campaigns.

We provide our solution through a SaaS business model with recurring subscriptions. We offer a comprehensive suite of applications delivered on our VCC cloud platform that are designed to enable our clients to manage and optimize interactions across inbound and outbound contact centers. We primarily generate revenue by selling subscriptions and related usage of our VCC cloud platform. We charge our clients monthly subscription fees for access to our solution, primarily based on the number of agent seats, as well as the specific functionalities and applications our clients deploy. We define agent seats as the maximum number of named agents allowed to concurrently access our solution. Our clients typically have more named agents than agent seats, and multiple named agents may use an agent seat, though not simultaneously. Substantially all of our clients purchase both subscriptions and related telephony usage from us. A small percentage of our clients subscribe to our platform but purchase telephony usage directly from wholesale telecommunications service providers. We do not sell telephony usage on a stand-alone basis to any client. The related usage fees are based on the volume of minutes for inbound and outbound interactions. We also offer bundled plans, generally for smaller deployments, where the client is charged a single monthly fixed fee per agent seat that includes both subscription and unlimited usage in the contiguous 48 states and, in some cases, Canada. We offer monthly, annual and multiple-year contracts to our clients, generally with 30 days' notice required for reductions in the number of agent seats. Increases in the number of agent seats can be provisioned almost immediately. Our clients, therefore, are able to adjust the number of agent seats used to meet their changing contact center volume needs. Our larger clients typically choose annual contracts, which generally include an implementation and ramp period of several months. Fixed subscription fees, including bundled plans, are generally billed monthly in advance, while related usage fees are billed in arrears. For the three and six months ended June 30, 2020, subscription and related usage fees accounted for 92% and 91%, respectively, of our revenue. For each of the three and six months ended June 30, 2019, subscription and related usage fees accounted for 92% of our revenue. The remainder was comprised of professional services revenue from the implementation and optimization of our solution.

Effects of COVID-19

In December 2019, a novel coronavirus disease known as COVID-19 was reported and on March 11, 2020, the World Health Organization, or WHO, characterized COVID-19 as a pandemic. This pandemic has resulted in a widespread health crisis that has significantly harmed the U.S. and global economies and financial markets, including those on which our common stock and our convertible senior notes trade, and may impact demand for our solutions.

In accordance with the various shelter-in-place and other social distancing orders and recommendations of applicable government agencies, all of our employees have transitioned to work-from-home operations and we have canceled all business travel by our employees, which have changed how we operate our business. Our clients and business partners are also subject to various and changing shelter-in-place and other social distancing orders and recommendations, which have changed the way we interact with our clients and business partners.

Our financial results for the first half of 2020 were not materially impacted by COVID-19. The severity and duration of the COVID-19 pandemic is uncertain and such uncertainty will likely continue in the near term and we will continue to actively monitor the situation taking into account the impact to our employees, customers, partners and suppliers. While there is considerable uncertainty, we believe that certain parts of our business will benefit, particularly over the longer term, from the need to enable work from home agents and to enhance business continuity planning. On the other hand, our smaller clients with less financial resources will likely see their business decline or cease altogether, and clients in certain industry verticals, such as travel and leisure, and consumer discretionary may reduce their number of agent seats. In addition, our clients in general face uncertain and challenging macroeconomic conditions and may reduce the number of agent seats, delay purchasing decisions or payments, or experience an adverse impact on their ability to pay or may not be able to pay us.

See Part II, Item 1A. Risk Factors, for further discussion of the impact of the COVID-19 pandemic on our business and operations.

Key GAAP Operating Results

Our revenue increased to $99.8 million and $194.9 million for the three and six months ended June 30, 2020, respectively, from $77.4 million and $152.0 million for the three and six months ended June 30, 2019, respectively. Revenue growth has primarily been driven by our larger clients. For each of the three and six months ended June 30, 2020 and 2019, no single client accounted for more than 10% of our total revenue. As of June 30, 2020, we had over 2,000 clients across multiple industries. Our clients' subscriptions generally range in size from fewer than 10 agent seats to approximately 6,000 agent seats. We had a net loss of $16.1 million and $23.5 million in the three and six months ended June 30, 2020, respectively, compared to a net loss of $1.9 million and $3.8 million in the three and six months ended June 30, 2019, respectively.

We have continued to make significant expenditures and investments, including in sales and marketing, research and development and infrastructure. We primarily evaluate the success of our business based on revenue growth and the efficiency and effectiveness of our investments. The growth of our business and our future success depend on many factors, including our ability to continue to expand our base of larger clients, grow revenue from our existing client base, innovate and expand internationally. While these areas represent significant opportunities for us, they also pose risks and challenges that we must successfully address in order to sustain the growth of our business and improve our operating results, including the impact of the COVID-19 pandemic.

Due to our continuing investments to grow our business, increase our sales and marketing efforts, pursue new opportunities, enhance our solution and build our technology, we expect our cost of revenue and operating expenses to increase in absolute dollars in future periods. However, we expect cost of revenue and certain operating expenses to fluctuate as a percentage of revenue in the near term taking into consideration the impact of COVID-19 and the macroeconomic environment.

Key Operating and Non-GAAP Financial Performance Metrics

In addition to measures of financial performance presented in our condensed consolidated financial statements, we monitor the key metrics set forth below to help us evaluate growth trends, establish budgets, measure the effectiveness of our sales and marketing efforts and assess operational efficiencies.

Annual Dollar-Based Retention Rate

We believe that our Annual Dollar-Based Retention Rate provides insight into our ability to retain and grow revenue from our clients, and is a measure of the long-term value of our client relationships. Our Annual Dollar-Based Retention Rate is calculated by dividing our Retained Net Invoicing by our Retention Base Net Invoicing on a monthly basis, which we then average using the rates for the trailing twelve months for the period being presented. We define Retention Base Net Invoicing as recurring net invoicing from all clients in the comparable prior year period, and we define Retained Net Invoicing as recurring net invoicing from that same group of clients in the current period. We define recurring net invoicing as subscription and related usage revenue excluding the impact of service credits, reserves and deferrals. Historically, the difference between recurring net invoicing and our subscription and related usage revenue has been within 10%.

The following table shows our Annual Dollar-Based Retention Rate for the periods presented:

	Twelve Months Ended	
	June 30, 2020	**June 30, 2019**
Annual Dollar-Based Retention Rate	105%	107%

Our Dollar-Based Retention Rate decreased year over year primarily due to fluctuations caused by our larger clients coming onto the platform at different times and ramping at different rates.

Adjusted EBITDA

We monitor adjusted EBITDA, a non-GAAP financial measure, to analyze our financial results and believe that it is useful to investors, as a supplement to U.S. GAAP measures, in evaluating our ongoing operational performance and enhancing an overall understanding of our past financial performance. We believe that adjusted EBITDA helps illustrate underlying trends in our business that could otherwise be masked by the effect of the income or expenses that we exclude from adjusted EBITDA. Furthermore, we use this measure to establish budgets and operational goals for managing our business and evaluating our performance. We also believe that adjusted EBITDA provides an additional tool for investors to use in comparing our recurring core business operating results over multiple periods with other companies in our industry.

Adjusted EBITDA should not be considered in isolation from, or as a substitute for, financial information prepared in accordance with U.S. GAAP, and our calculation of adjusted EBITDA may differ from that of other companies in our industry. We compensate for the inherent limitations associated with using adjusted EBITDA through disclosure of these limitations, presentation of our financial statements in accordance with U.S. GAAP and reconciliation of adjusted EBITDA to the most directly comparable U.S. GAAP measure, net loss. We calculate adjusted EBITDA as net loss before (1) depreciation and amortization, (2) stock-based compensation, (3) interest income, expense and other, (4) acquisition-related transaction costs and one-time integration costs, (5) COVID-19 relief bonus for employees, (6) provision for (benefit from) income taxes, and (7) other items that do not directly affect what we consider to be our core operating performance.

The following table shows a reconciliation of net loss to adjusted EBITDA for the periods presented (in thousands):

	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Net loss	$ (16,052)	$ (1,860)	$ (23,489)	$ (3,784)
Non-GAAP adjustments:				
Depreciation and amortization [1]	6,243	3,361	11,213	6,553
Stock-based compensation [2]	16,791	10,436	30,585	19,122
Interest expense	5,734	3,406	9,218	6,802
Interest income and other	4,965	(1,490)	3,893	(3,235)
Legal settlement	—	420	—	420
Legal and indemnification fees related to settlement [3]	—	64	—	356
Acquisition-related transaction costs and one-time integration costs	1,637	—	1,966	—
COVID-19 relief bonus for employees	1,817	—	1,817	—
Provision for (benefit from) income taxes	(2,876)	29	(2,807)	(20)
Adjusted EBITDA	$ 18,259	$ 14,366	$ 32,396	$ 26,214

(1) Depreciation and amortization expenses included in our results of operations are as follows (in thousands):

	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Cost of revenue	$ 5,120	$ 2,504	$ 9,060	$ 4,870
Research and development	497	450	963	890
Sales and marketing	2	1	3	2
General and administrative	624	406	1,187	791
Total depreciation and amortization	$ 6,243	$ 3,361	$ 11,213	$ 6,553

(2) See Note 7 to the condensed consolidated financial statements for stock-based compensation expense included in our results of operations for the periods presented.

(3) Represents legal and indemnification fees related to the Melcher litigation.

Key Components of Our Results of Operations

Revenue

Our revenue consists of subscription and related usage as well as professional services. We consider our subscription and related usage to be recurring revenue. This recurring revenue includes fixed subscription fees for the delivery and support of our VCC cloud platform, as well as related usage fees. The related usage fees are generally based on the volume of minutes for inbound and outbound client interactions. We also offer bundled plans, generally for smaller deployments, where the client is charged a single monthly fixed fee per agent seat that includes both subscription and unlimited usage in the contiguous 48 states and, in some cases, Canada. We offer monthly, annual and multiple-year contracts for our clients, generally with 30 days' notice required for reductions in the number of agent seats. Increases in the number of agent seats can be provisioned almost immediately. Our clients, therefore, are able to adjust the number of agent seats used to meet their changing contact center volume needs. Our larger clients typically choose annual contracts, which generally include an implementation and ramp period of several months.

Fixed subscription fees, including plans with bundled usage, are generally billed monthly in advance, while variable usage fees are billed in arrears. Fixed subscription fees are recognized on a straight-line basis over the applicable term, which is predominantly the monthly contractual billing period. Support activities include technical assistance for our solution and upgrades and enhancements on a when and if available basis, which are not billed separately. Variable subscription related usage fees for non-bundled plans are billed in arrears based on client-specific per minute rate plans and are recognized as actual usage occurs. We generally require advance deposits from clients based on estimated usage. All fees, except usage deposits, are non-refundable.

In addition, we generate professional services revenue from assisting clients in implementing our solution and optimizing use. These services include application configuration, system integration and education and training services. Professional services are primarily billed on a fixed-fee basis and are typically performed by us directly. In limited cases, our clients choose to perform these services themselves or engage their own third-party service providers to perform such services. Professional services are recognized as the services are performed using the proportional performance method, with performance measured based on labor hours, provided all other criteria for revenue recognition are met.

Cost of Revenue

Our cost of revenue consists primarily of personnel costs, including stock-based compensation, fees that we pay to telecommunications providers for usage, USF contributions and other regulatory costs, depreciation and related expenses of the servers and equipment, costs to build out and maintain co-location data centers, allocated office and facility costs and amortization of acquired technology. Cost of revenue can fluctuate based on a number of factors, including the fees we pay to telecommunications providers, which vary depending on our clients' usage of our VCC cloud platform, the timing of capital expenditures and related depreciation charges and changes in headcount. We expect to continue investing in our network infrastructure and operations and client support function to maintain high quality and availability of service, resulting in absolute dollar increases in cost of revenue. As our business grows, we expect to realize economies of scale in network infrastructure, personnel and client support.

Operating Expenses

We classify our operating expenses as research and development, sales and marketing, and general and administrative expenses.

Research and Development. Our research and development expenses consist primarily of salary and related expenses, including stock-based compensation, for personnel related to the development of improvements and expanded features for our services, as well as quality assurance, testing, product management and allocated overhead. We expense research and development expenses as they are incurred except for internal use software development costs that qualify for capitalization. We believe that continued investment in our solution is important for our future growth, and we expect our research and development expenses to increase in absolute dollars and as a percentage of revenue in the near term.

Sales and Marketing. Sales and marketing expenses consist primarily of salaries and related expenses, including stock-based compensation, for personnel in sales and marketing, sales commissions, as well as advertising, marketing, corporate communications, travel costs and allocated overhead. We believe it is important to continue investing in sales and marketing to continue to generate revenue growth, and we expect sales and marketing expenses to increase in absolute dollars over the long term and fluctuate as a percentage of revenue as we continue to support our growth initiatives.

General and Administrative. General and administrative expenses consist primarily of salary and related expenses, including stock-based compensation, for management, finance and accounting, legal, information systems and human resources personnel, professional fees, compliance costs, other corporate expenses and allocated overhead. We expect that general and administrative expenses will fluctuate in absolute dollars and as a percentage of revenue in the near term, due to among other things, the impact of COVID-19 and the resulting macroeconomic conditions, but to increase in absolute dollars and decline as a percentage of revenue over time.

Results of Operations for the Three and Six Months Ended June 30, 2020 and 2019

Based on the condensed consolidated statements of operations and comprehensive loss set forth in this Quarterly Report on Form 10-Q, the following table sets forth our operating results as a percentage of revenue for the periods indicated:

	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Revenue	100 %	100 %	100 %	100 %
Cost of revenue	43 %	40 %	42 %	41 %
Gross profit	57 %	60 %	58 %	59 %
Operating expenses:				
Research and development	17 %	14 %	17 %	14 %
Sales and marketing	32 %	30 %	32 %	29 %
General and administrative	16 %	16 %	16 %	16 %
Total operating expenses	65 %	60 %	65 %	59 %
Income (loss) from operations	(8)%	— %	(7)%	— %
Other income (expense), net:				
Interest expense	(6)%	(4)%	(5)%	(4)%
Interest income and other	(5)%	2 %	(1)%	2 %
Total other income (expense), net	(11)%	(2)%	(6)%	(2)%
Loss before income taxes	(19)%	(2)%	(13)%	(2)%
Provision for (benefit from) income taxes	(3)%	— %	(1)%	— %
Net loss	(16)%	(2)%	(12)%	(2)%

Revenue

	Three Months Ended				Six Months Ended			
	June 30, 2020	June 30, 2019	$ Change	% Change	June 30, 2020	June 30, 2019	$ Change	% Change
	(in thousands, except percentages)							
Revenue	$ 99,792	$ 77,436	$ 22,356	29 %	$ 194,880	$ 151,974	$ 42,906	28 %

The increase in revenue for the three and six months ended June 30, 2020 compared to the same periods of 2019 was primarily attributable to our larger clients, driven by an increase in our sales and marketing activities and our improved brand awareness.

Cost of Revenue

	Three Months Ended				Six Months Ended			
	June 30, 2020	June 30, 2019	$ Change	% Change	June 30, 2020	June 30, 2019	$ Change	% Change
	(in thousands, except percentages)							
Cost of revenue	$ 42,453	$ 31,248	$ 11,205	36 %	$ 82,490	$ 62,099	$ 20,391	33 %
% of Revenue	43 %	40 %			42%	41%		

The increase in cost of revenue for the three and six months ended June 30, 2020 compared to the same periods of 2019 was primarily due to a $3.9 million and $6.4 million increase in personnel costs including stock-based compensation costs, driven mainly by increased headcount and a higher fair value of employee equity awards due primarily to our increased stock price, a $2.3 million and a $3.5 million increase in depreciation and data center costs driven by increased capital expenditures to support our growing capacity needs and continuing expansion of our existing data center facilities, a $1.7 million and a $2.7 million increase in amortization expense due to the acquisitions of certain intangible assets from Whendu in November 2019 and Virtual Observer in April 2020, a $1.1 million and a $2.6 million increase in third-party hosted software costs driven by increased client activities, a $1.0 million and $1.7 million increase in facilities and related costs, and a $0.9 million and $1.5 million increase in USF contributions and other federal telecommunication service fees due primarily to increased client usage and an increase in the USF contribution rate.

Gross Profit

	Three Months Ended				Six Months Ended			
	June 30, 2020	June 30, 2019	$ Change	% Change	June 30, 2020	June 30, 2019	$ Change	% Change
	(in thousands, except percentages)							
Gross profit	$ 57,339	$ 46,188	$ 11,151	24 %	$112,390	$89,875	$22,515	25%
% of Revenue	57 %	60 %			58%	59%		

The increase in gross profit for the three and six months ended June 30, 2020 compared to the same periods of 2019 was primarily due to increases in subscription and usage revenues. The decrease in gross margin for the three and six months ended June 30, 2020 compared to the same periods of 2019 was primarily due to the increase in amortization expense from the acquisition of certain intangible assets from Virtual Observer and Whendu and from an increase in stock-based compensation costs, driven by increased headcount and a higher fair value of employee equity awards primarily due to our increased stock price.

Operating Expenses

Research and Development

	Three Months Ended				Six Months Ended			
	June 30, 2020	June 30, 2019	$ Change	% Change	June 30, 2020	June 30, 2019	$ Change	% Change
	(in thousands, except percentages)							
Research and development	$ 17,208	$ 10,811	$ 6,397	59 %	$32,397	$21,357	$11,040	52%
% of Revenue	17 %	14 %			17%	14%		

The increase in research and development expenses for the three and six months ended June 30, 2020 compared to the same periods of 2019 was primarily due to a $5.3 million and a $9.3 million increase in personnel costs including stock-based compensation costs, driven mainly by increased headcount and a higher fair value of employee equity awards due primarily to our increased stock price.

Sales and Marketing

	Three Months Ended				Six Months Ended			
	June 30, 2020	June 30, 2019	$ Change	% Change	June 30, 2020	June 30, 2019	$ Change	% Change
	(in thousands, except percentages)							
Sales and marketing	$ 32,231	$ 23,250	$ 8,981	39 %	$62,391	$44,951	$17,440	39%
% of Revenue	32 %	30 %			32%	29%		

The increase in sales and marketing expenses for the three and six months ended June 30, 2020 compared to the same periods of 2019 was primarily due to a $6.7 million and $12.9 million increase in personnel-related costs including stock-based compensation costs driven mainly by increased headcount and higher fair value equity awards due primarily to our increased stock price, and a $2.0 million and a $3.8 million increase in sales commission expenses driven by the growth in sales and bookings of our solution.

General and Administrative

	Three Months Ended				Six Months Ended			
	June 30, 2020	June 30, 2019	$ Change	% Change	June 30, 2020	June 30, 2019	$ Change	% Change
	(in thousands, except percentages)							
General and administrative	$ 16,129	$ 12,042	$ 4,087	34 %	$30,787	$23,804	$6,983	29%
% of Revenue	16 %	16 %			16%	16%		

The increase in general and administrative expenses for the three and six months ended June 30, 2020 compared to the same periods of 2019 was primarily due to a $3.2 million and a $5.7 million increase in personnel costs including stock-based compensation costs, driven mainly by increased headcount and a higher fair value of equity awards primarily driven by our increased stock price, and a $1.0 million increase in legal and other professional services costs, which included $0.4 million in acquisition-related costs from the acquisition of Virtual Observer.

Other Income (Expense), Net

	Three Months Ended				Six Months Ended			
	June 30, 2020	**June 30, 2019**	**$ Change**	**% Change**	**June 30, 2020**	**June 30, 2019**	**$ Change**	**% Change**
	(in thousands, except percentages)							
Interest expense	$ (5,734)	$ (3,406)	$ (2,328)	68 %	$ (9,218)	$ (6,802)	$ (2,416)	36 %
Interest income and other	(4,965)	1,490	(6,455)	(433) %	(3,893)	3,235	(7,128)	(220) %
Total other income (expense), net	$ (10,699)	$ (1,916)	$ (8,783)	458 %	$ (13,111)	$ (3,567)	$ (9,544)	268 %
% of Revenue	(11) %	(2) %			(6) %	(3) %		

The increase in interest expense for the three and six months ended June 30, 2020 compared to the same periods of 2019 was primarily due to an increase in interest expense under our 2025 convertible senior notes issued in May and June 2020, offset in part by the decrease in interest expense as a result of the 2023 Note Repurchase Transactions, which decreased the aggregate outstanding principal amount of our 2023 convertible senior notes.

The unfavorable change of $(6.5) million and $(7.1) million in interest income and other for the three and six months ended June 30, 2020 compared to the same periods of 2019 was primarily from a $5.8 million loss associated with the early extinguishment of our 2023 convertible senior notes and from lower interest income on our marketable investments.

Liquidity and Capital Resources

To date, we have financed our operations primarily through sales of our solution, lease facilities and net proceeds from our equity and debt financings, including the issuance of our 2025 convertible senior notes in May and June 2020 and of our 2023 convertible senior notes in May 2018. As of June 30, 2020, we had $675.5 million in working capital, which included $233.2 million in cash and cash equivalents and $452.7 million in short-term marketable investments. We also had $82.1 million in long-term marketable investments as of June 30, 2020.

In May and June 2020, we issued $747.5 million aggregate principal amount of our 2025 convertible senior notes in a private offering. The 2025 convertible senior notes mature on June 1, 2025 and are our senior unsecured obligations. The 2025 convertible senior notes bear interest at a fixed rate of 0.500% per annum, payable semiannually in arrears on June 1 and December 1 of each year, beginning December 1, 2020. The total net proceeds from the offering, after deducting initial purchasers' discounts and commissions and estimated debt issuance costs, were approximately $728.8 million. In May 2018, we issued $258.8 million aggregate principal amount of our 2023 convertible senior notes in a private offering. The 2023 convertible senior notes mature on May 1, 2023 and are our senior unsecured obligations. The 2023 convertible senior notes bear interest at a fixed rate of 0.125% per annum, payable semiannually in arrears on May 1 and November 1 of each year. The total net proceeds from the offering, after deducting the initial purchasers' discounts and estimated debt issuance costs, were approximately $250.8 million. As of June 30, 2020, after giving effect to the 2023 Note Repurchase Transactions, approximately $77.7 million aggregate principal amount of 2023 convertible senior notes remained outstanding. For additional information regarding the convertible senior notes and related transactions, see Note 6 to the condensed consolidated financial statements included in this report.

We believe our existing cash and cash equivalents will be sufficient to meet our working capital and capital expenditure needs for at least the next 12 months. Our future capital requirements will depend on many factors including our growth rate, continuing market acceptance of our solution, client retention, our ability to gain new clients, the timing and extent of spending to support research and development efforts, the outcome of any pending or future litigation or other claims by third parties or governmental entities, the expansion of sales and marketing activities and personnel and the introduction of new and enhanced offerings, including the impact of the COVID-19 pandemic on these or other factors. We may also acquire or invest in complementary businesses, technologies and intellectual property rights, which may increase our future capital requirements, either to pay acquisition costs or to support our combined operations. We may raise additional equity or engage in debt financings at any time to fund these or other requirements. However, we may not be able to raise additional equity or debt financing when needed on terms acceptable to us or at all, depending on market conditions and other factors, including the length and severity of the impact of the COVID-19 pandemic on general economic conditions and potential future impacts on the financial markets. If we are unable to raise additional capital as needed, our business, operating results and financial condition could be harmed. In addition, if our operating performance during the next twelve months is below our expectations, our liquidity and ability to operate our business also could be harmed.

If we raise additional funds by issuing equity or equity-linked securities, the ownership of our existing stockholders would be diluted. If we raise additional funds through the incurrence of additional indebtedness, we will be subject to increased debt service obligations and could also be subject to restrictive covenants and other operating restrictions that could negatively impact our ability to operate our business.

Cash Flows

The following table summarizes our cash flows for the periods presented (in thousands, except percentages):

	Six Months Ended			
	June 30, 2020	June 30, 2019	$ Change	% Change
Net cash provided by operating activities	$ 25,159	$ 17,978	$ 7,181	40 %
Net cash (used in) provided by investing activities	(336,353)	6,037	(342,390)	(5,672)%
Net cash provided by financing activities	466,453	4,542	461,911	10,170 %
Net increase in cash and cash equivalents	$ 155,259	$ 28,557	$ 126,702	444 %

Cash Flows from Operating Activities

Cash provided by operating activities is primarily influenced by our personnel-related expenditures, data center and telecommunications carrier costs, office and facility related costs, USF contributions and other regulatory costs and the amount and timing of client payments. If we continue to improve our financial results, we expect net cash provided by operating activities to increase. Our largest source of operating cash inflows is cash collections from our clients for subscription and related usage services. Payments from clients for these services are typically received monthly.

Net cash provided by operating activities was $25.2 million during the six months ended June 30, 2020. Net cash provided by operating activities resulted from our net loss of $23.5 million adjusted for non-cash items of $57.1 million, primarily consisting of $30.6 million of stock-based compensation, $11.2 million of depreciation and amortization, $8.6 million of amortization of discount and issuance costs on our convertible senior notes and $5.8 million of loss from the early extinguishment of our 2023 convertible senior notes, offset by use of cash for operating assets and liabilities of $8.5 million primarily due to the timing of cash payments to vendors and cash receipts from customers.

Net cash provided by operating activities was $18.0 million during the six months ended June 30, 2019. Net cash provided by operating activities resulted from our net loss of $3.8 million adjusted for non-cash items of $33.0 million, primarily consisting of $19.1 million of stock-based compensation, $6.6 million of depreciation and amortization, and $6.2 million of amortization of discount and issuance costs on our convertible senior notes, offset by use of cash for operating assets and liabilities of $11.2 million primarily due to the time of cash payments to vendors and cash receipts from customers.

Cash Flows from Investing Activities

Net cash used in investing activities of $336.4 million in the six months ended June 30, 2020 was comprised of $460.9 million related to cash proceeds from maturities of marketable investments, $28.3 million, net of cash acquired in connection with the acquisition of Virtual Observer and $14.9 million in capital expenditures, offset in part by $167.9 million related to purchases of marketable investments.

Net cash provided by investing activities of $6.0 million in the six months ended June 30, 2019 was comprised of $165.4 million related to cash proceeds from maturities of marketable investments and $0.2 million cash proceeds related to gain from the sale of convertible notes held for investment, offset in part by $151.3 million related to purchases of marketable investments and $8.2 million in capital expenditures.

Cash Flows from Financing Activities

Net cash provided by financing activities of $466.5 million in the six months ended June 30, 2020 related to net cash proceeds of $728.8 million from the issuance of the 2025 convertible senior notes, net of initial purchasers' discounts and commissions and estimated debt issuance costs, cash proceeds of $6.1 million from exercise of stock options and $5.7 million from the sale of common stock under our employee stock purchase plan, partially offset by $181.5 million of cash paid in connection with the 2023 Note Repurchase Transactions, $90.5 million of cash paid in connection with the 2025 Capped Call Transactions and $2.2 million of payments related to finance leases.

Net cash provided by financing activities of $4.5 million in the six months ended June 30, 2019 related to cash proceeds of $4.2 million from exercises of stock options and $4.0 million from the sale of common stock under our ESPP, partially offset by $3.7 million of payments related to finance leases.

Critical Accounting Policies and Estimates

Our condensed consolidated financial statements are prepared in accordance with U.S. GAAP. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, expenses and related disclosures. On an ongoing basis, we evaluate our estimates and assumptions. Our actual results may differ from these estimates under different assumptions or conditions.

We believe our critical accounting policies involve the greatest degree of judgment and complexity and have the greatest potential impact on our condensed consolidated financial statements.

Revenue Recognition

Revenue is recognized when control of the promised services are transferred to customers, in an amount that reflects the consideration that we expect to receive in exchange for those services. We generate all of our revenue from contracts with customers. In contracts with multiple performance obligations, we identify each performance obligation and evaluate whether the performance obligations are distinct within the context of the contract at contract inception. Performance obligations that are not distinct at contract inception are combined. We allocate the transaction price to each distinct performance obligation proportionately based on the estimated standalone selling price for each performance obligation. We then look to how services are transferred to the customer in order to determine the timing of revenue recognition. Most services provided under our agreements result in the transfer of control over time.

Our revenue consists of subscription services and related usage as well as professional services. We charge clients subscription fees, usually billed on a monthly basis, for access to our VCC solution. The subscription fees are primarily based on the number of agent seats, as well as the specific VCC functionalities and applications deployed by the client. Agent seats are defined as the maximum number of named agents allowed to concurrently access our VCC cloud platform. Clients typically have more named agents than agent seats. Multiple named agents may use an agent seat, though not simultaneously. Substantially all of our clients purchase both subscriptions and related telephony usage. A small percentage of our clients subscribe to our platform but purchase telephony usage directly from a wholesale telecommunications service provider. We do not sell telephony usage on a stand-alone basis to any client. The related usage fees are based on the volume of minutes used for inbound and outbound client interactions. Revenue generated from telephony usage is presented in revenue and cost of sales on a gross basis, as we are the party that controls the service and are responsible for fulfilling the promise to provide the call service by diverting the calls to selected carriers. We also offer bundled plans, generally for smaller deployments, whereby the client is charged a single monthly fixed fee per agent seat that includes both subscription and unlimited usage in the contiguous 48 states and, in some cases, Canada. Professional services revenue is derived primarily from VCC implementations, including application configuration, system integration, optimization, education and training services. Clients are not permitted to take possession of our software.

We offer monthly, annual and multiple-year contracts to our clients, generally with 30 days’ notice required for reductions in the number of agent seats. Increases in the number of agent seats can be provisioned almost immediately. Our clients, therefore, are able to adjust the number of agent seats used to meet their changing contact center volume needs. Our larger clients typically choose annual contracts, which generally include an implementation and ramp period of several months. Fixed subscription fees, including bundled plans, are generally billed monthly in advance, while related usage fees are billed in arrears. Support activities include technical assistance for our solution and upgrades and enhancements to our VCC cloud platform on a when-and-if-available basis, which are not billed separately.

Professional services are primarily billed on a fixed-fee basis and are performed by us directly or, alternatively, clients may also choose to perform these services themselves or engage their own third-party service providers. Revenue for professional services is recognized over time, as services are performed.

The estimation of variable consideration for each performance obligation requires us to make subjective judgments. In the early stages of our larger contracts, in order to allocate the overall transaction fee on a relative stand-alone selling price basis to our multiple performance obligations, we estimate variable consideration to be included in the transaction fee to the extent that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. When services are included in the contract with the customer and are not sold at their stand-alone selling price, this requires us to estimate the number of seats the customer will use, especially during the initial ramp period of the contract, during which we bill under an ‘actual usage’ model for subscription-related services.

We recognize revenue on fixed fee professional services performance obligations based on the proportion of labor hours expended compared to the total hours expected to complete the related performance obligation.

The revenue recognition standards include guidance relating to any tax assessed by a governmental authority that is directly imposed on a revenue-producing transaction between a seller and a customer and may include, but is not limited to, sales, use, value added and excise taxes. We record USF contributions and other regulatory costs on a gross basis in our condensed consolidated statements of operations and comprehensive loss and record surcharges and sales, use and excise taxes billed to our clients on a net basis. The cost of gross USF contributions payable to the USAC and suppliers is presented as a cost of revenue in the condensed consolidated statements of operations and comprehensive loss.

Recent Accounting Pronouncements

Refer to Note 1 of the notes to condensed consolidated financial statements included in this report.

Off-Balance Sheet Arrangements

As of June 30, 2020, we did not have any off-balance sheet arrangements, as defined in Item 303(a)(4)(ii) of SEC Regulation S-K, such as the use of unconsolidated subsidiaries, structured finance, special purpose entities or variable interest entities.

Contractual Obligations

Our principal contractual obligations consist of future payment obligations under our convertible senior notes, finance leases to finance data centers and other computer and networking equipment, operating leases for office facilities, and agreements with third parties to provide co-location hosting, telecommunication usage and equipment maintenance services. These commitments as of December 31, 2019 are disclosed in our Annual Report on Form 10-K for the year ended December 31, 2019, and did not change materially during the six months ended June 30, 2020 except for certain hosting and telecommunications agreements and the future payment obligations associated with the 2025 convertible senior notes, which were issued in May and June 2020, offset in part by the repurchase of a portion of the 2023 convertible senior notes in May 2020. As of June 30, 2020, our commitments under various hosting and telecommunications agreements for terms ranging up to 36 months totaled $7.4 million. These agreements require us to make monthly payments over the service term in exchange for certain network services.

As of June 30, 2020, $825.2 million of aggregate principal amount of our convertible senior notes was outstanding. The 2023 convertible senior notes are due May 1, 2023 and the 2025 convertible senior notes are due June 1, 2025. For additional information regarding the convertible senior notes, see Note 6 to the condensed consolidated financial statements included in this report.

ITEM 3. Quantitative and Qualitative Disclosure about Market Risk

We are exposed to market risk in the ordinary course of our business. Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily a result of fluctuations in interest rates and foreign currency exchange rates. We do not hold or issue financial instruments for trading purposes. For a discussion of market risk, see "Quantitative and Qualitative Disclosure about Market Risk" in Item 7A of our Annual Report on Form 10-K for the fiscal year ended December 31, 2019. Our exposure to market risk has not changed materially since December 31, 2019.

We had cash and cash equivalents, and marketable securities (short and long-term) totaling $768.0 million as of June 30, 2020. Cash equivalents and marketable securities were invested primarily in U.S. agency securities, U.S. treasury, municipal bonds, corporate bonds, commercial paper, certificates of deposit and money market funds. Our investment policy is focused on the preservation of capital and supporting our liquidity needs. Under the policy, we invest in highly rated securities, while limiting the amount of credit exposure to any one issuer other than the U.S. government. We do not invest in financial instruments for trading or speculative purposes, nor do we use leveraged financial instruments. We utilize external investment managers who adhere to the guidelines of our investment policy. A hypothetical 100 basis point change in interest rates would not have a material impact on the value of our cash and cash equivalents or marketable investments.

As of June 30, 2020, aggregate principal amount outstanding of our 2025 convertible senior notes and 2023 convertible senior notes was $747.5 million and $77.7 million, respectively. The fair value of the convertible senior notes is subject to interest rate risk, market risk and other factors due to the conversion feature. The fair value of the convertible senior notes will generally increase as our common stock price increases and will generally decrease as our common stock price declines. The interest and market value changes affect the fair value of the convertible senior notes but do not impact our financial position, cash flows or results of operations due to the fixed nature of the debt obligation. Additionally, we carry the convertible senior notes at face value less unamortized discount on our condensed consolidated balance sheets, and we present the fair value for required disclosure purposes only.

Our convertible senior notes bear a fixed interest rate, and therefore, are not subject to interest rate risk. We have not utilized derivative financial instruments, derivative commodity instruments or other market risk sensitive instruments, positions or transactions in any material fashion, except for the privately negotiated capped call transactions entered into in May and June 2020 and May 2018 related to the issuance of our 2025 convertible senior notes and our 2023 convertible senior notes.

ITEM 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of 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 June 30, 2020.

Based on management's evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of June 30, 2020, our disclosure controls and procedures were designed, and were effective, to provide assurance at a reasonable level that the information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms, and that such information is accumulated and communicated to our management as appropriate to allow timely decisions regarding required disclosures.

In designing and evaluating our disclosure controls and procedures, management recognizes that any disclosure controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Changes in Internal Control over Financial Reporting

During the three months ended June 30, 2020, there was no change in our internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. We have not experienced any material impact to our internal controls over financial reporting despite the fact that all of our employees are working remotely due to the COVID-19 pandemic. We are continually monitoring and assessing the impact of the COVID-19 situation on our internal controls to minimize any impact on their design and operating effectiveness.

PART II. OTHER INFORMATION

ITEM 1. Legal Proceedings

Information with respect to this Item may be found under the heading “Legal Matters” in Note 10 to the condensed consolidated financial statements in this Quarterly Report on Form 10-Q, which information is incorporated herein by reference.

ITEM 1A. Risk Factors

Except for the below risk factors, which update those previously disclosed in our Annual Report on Form 10-K as filed with the SEC on February 27, 2020, there have been no material changes from the Risk Factors previously disclosed in Part 1, Item 1A, of our Annual Report on Form 10-K for the fiscal year ended December 31, 2019. In addition to the other information set forth in this report, including the below update to Risk Factors, you should carefully consider the Risk Factors discussed in our Annual Report on Form 10-K as they could materially affect our business, financial condition and future results of operation.

The effects of the COVID-19 pandemic have materially affected how we, our clients and business partners are operating, and the duration and extent to which this will impact our future results of operations and overall financial performance remains uncertain.

In December 2019, a novel coronavirus disease known as COVID-19 was reported and on March 11, 2020, the World Health Organization, or WHO, characterized COVID-19 as a pandemic. This pandemic has resulted in a widespread health crisis that has continued to significantly harm the U.S. and global economies and financial markets, including those on which our common stock and other securities trade, and may impact demand for our solutions.

Our employees continue to follow various shelter-in-place and other social distancing orders and recommendations of applicable government agencies. Our employees' business travel has been suspended except where necessary and properly authorized. Our clients and business partners are also subject to various shelter-in-place and other social distancing orders, which have changed the way we interact with our clients and business partners. Moreover, the conditions caused by the COVID-19 pandemic, the extent of which depends upon its prolonged impact, has or may:

- harm our ability to renew and maintain our relationships with our existing clients;
- cause our existing clients to reduce the number of seats to which they subscribe, seek price concessions, or go out of business, which would harm our revenue;
- result in some of our clients failing to comply with the terms of their agreements, including payment terms, due to economic uncertainty, financial hardship, and even failure of these businesses, which could result in us being required to take action to collect payments, terminate their subscriptions for our solution, increase accounts receivable, and reduce collections, any which would increase our expenses and harm our revenues and results of operations;
- make it more difficult for us to sell increased services or functionality to our existing clients;
- reduce the rate of spending on enterprise software solutions or cloud-based enterprise contact center systems generally;
- delay prospective clients’ decisions to subscribe to our solution, increase the length of sales cycles, or slow the typical growth in the use of our solutions once clients have initially deployed our solution;
- harm our ability to effectively market and sell our solutions, particularly during shelter-in-place and other social distancing orders;
- change the mix and sizes or types of organizations that purchase our solution;
- delay the introduction of enhancements to our solution and market acceptance of any new features and products;

- harm our ability to grow our international sales and operations;
- harm our ability to recruit, onboard and successfully integrate new employees, including members of our direct sales force, both domestically and internationally, as a result of not being able to interface in person;
- increase the burden on our technical operations infrastructure, which could harm the capacity, stability, security and performance of our operations infrastructure and potentially leave us more vulnerable to security breaches;
- limit our ability to efficiently provide professional services to our larger clients, as those services have typically been performed onsite, which could delay implementation of our solution at new clients;
- harm our ability to manage, maintain or increase our network of master agents and resellers to sell our solution, and make it more difficult for them to effectively assist us with their sales efforts;
- impact the health and safety of our employees, including our senior management team, and their ability to perform services;
- cause our management team to continue to commit significant time, attention and resources to monitor the COVID-19 pandemic and seek to mitigate its effect on our business and workforce;
- lead to the adoption of additional new laws and regulations that we are required to comply with and that could harm our results of operations, and we may be subject to COVID-19 related litigation; and
- cause the price per share of our common stock or the trading price of our convertible senior notes to continue to experience substantial volatility, and potentially decline, based on developments and announcements related to COVID-19 and its impact on the global and U.S. economy in general or our industry in particular, our failure to meet our guidance or analyst expectations or withdrawal or modification by us of previously issued guidance.

Any of the foregoing factors could significantly harm our future sales, operating results, gross margins and overall financial performance, which could cause us to experience a decreased level of growth of our business and make our future financial results and prospects difficult to predict. The COVID-19 pandemic and its impact on us and the U.S. and global economies, has significantly limited our ability to forecast our future operating results, including our ability to predict revenue and expense levels, and plan for and model future results of operations. Moreover, because a significant portion of our revenue is derived from existing clients, downturns in new sales will not immediately be reflected in our operating results and may be difficult to discern until future periods. Our competitors could experience similar or different impacts as a result of COVID-19, which could result in changes to our competitive landscape.

The duration and extent of the impact from the COVID-19 pandemic depends on future developments that cannot be accurately predicted at this time, such as the ongoing severity and transmission rate of the virus, the extent and effectiveness of containment actions, the duration of shelter-in-place and other restrictions on businesses and society at large, and the specific impact of these and other factors on our business, employees, clients and partners. If we are not able to respond to and manage the impact of such events effectively, our business will be harmed. There are no comparable recent events that provide guidance as to the effect the COVID-19 pandemic may have and, as a result, the ultimate impact of the outbreak on our business and operations is highly uncertain and subject to change. However, the effects could have a material impact on our results of operations and heighten many of the risks described under “Risk Factors” and elsewhere herein and in our Annual Report on Form 10-K for the year ended December 31, 2019.

Risks Related to Ownership of Our Convertible Senior Notes

Servicing our debt may require a significant amount of cash. We may not have sufficient cash flow from our business to pay our indebtedness, and we may not have the ability to raise the funds necessary to settle for cash conversions of the convertible senior notes or to repurchase the convertible senior notes for cash upon a fundamental change, which could adversely affect our business and results of operations.

In May 2018, we issued $258.8 million in aggregate principal amount of the 2023 convertible senior notes in a private offering. In May 2020, we repurchased or exchanged $181.0 in aggregate principal amount of the 2023 convertible senior notes through individually negotiated private transactions in the 2023 Note Repurchase

Transactions. As of June 30, 2020, after giving effect to the 2023 Note Repurchase Transactions, we had approximately $77.8 million in aggregate principal amount of the 2023 convertible senior notes outstanding. The 2023 convertible senior notes mature on May 1, 2023 and the interest rate of the 2023 convertible senior notes is fixed at 0.125% per annum, payable semiannually in arrears on May 1 and November 1 of each year.

In May and June 2020, we issued $747.5 million in aggregate principal amount of the 2025 convertible senior notes in a private offering, all of which were outstanding as of June 30, 2020. The 2025 convertible senior notes mature on June 1, 2025, and the interest rate of the 2025 convertible senior notes is fixed at 0.500% per annum, payable semiannually in arrears on June 1 and December 1 of each year, beginning on December 1, 2020.

Our ability to make scheduled payments of principal and interest, or to refinance our indebtedness, including the convertible senior 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 flows from operations in the future that are sufficient to service our debt and make necessary capital expenditures. If we are unable to generate sufficient cash flows, we may be required to pursue one or more alternatives, such as selling assets, restructuring debt or obtaining additional debt financing or equity capital on terms that may be onerous or highly dilutive to existing holders of our common stock. Our ability to obtain additional financing or refinance either or both series of the convertible senior notes, or any future indebtedness, will depend on conditions in the capital markets and our financial condition at such time, among other factors. We may not be able to engage in any of these activities on favorable terms or at all, which could result in a default on our debt obligations or other material adverse effects on our business and financial condition.

Subject to certain conditions, holders of both series of the convertible senior notes have the right to require us to repurchase for cash all or any portion of their convertible senior notes upon the occurrence of a fundamental change (as defined in the indentures governing the convertible senior notes) at a fundamental change repurchase price equal to 100% of the principal amount of the applicable series of convertible senior notes to be repurchased, plus accrued and unpaid interest, if any, to, but excluding, the applicable fundamental change repurchase date.

Upon conversion of either or both series of convertible senior notes in accordance with their terms, unless we elect to deliver solely shares of our common stock to settle such conversion (other than paying cash in lieu of delivering any fractional share), we will be required to settle a portion or all of our conversion obligation through the payment of cash. We may not have enough available cash or be able to obtain financing at the time we are required to make repurchases in connection with such conversion and our ability to pay may be further limited by law, regulatory authority or agreements governing our future indebtedness. Our failure to repurchase any convertible senior notes at a time when the repurchase is required by the applicable indenture or to pay any cash payable on any future conversions as required by the applicable indenture would constitute a default under such indenture. A default under either such indenture would lead to, and the occurrence of the fundamental change itself may 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 or repurchase any convertible senior notes when required, or to make cash payments upon conversions thereof.

The conditional conversion feature of the 2023 convertible senior notes and, if triggered, the 2025 convertible senior notes, may adversely affect our financial condition and operating results.

If and to the extent the conditional conversion features of either or both series of convertible senior notes are triggered, holders of such convertible senior notes will be entitled to convert their convertible senior notes at any time during specified periods at their option. During the three months ended June 30, 2020, one of the conversion features of the 2023 convertible senior notes was triggered, entitling the holders thereof to convert such convertible senior notes from July 1, 2020 to September 30, 2020. Whether the 2023 convertible senior notes will be convertible after June 30, 2020 will depend on the continued satisfaction of this condition or other conversion conditions.

To the extent that the respective conditional conversion features of either or both series of convertible senior notes are triggered in the future, holders of such convertible senior notes, as applicable, will be entitled to convert their convertible senior notes at any time during the specified periods at their option. If one or more holders elect to convert their convertible senior notes during any such specified period, we have the option to pay or deliver, as the case may be, cash, shares of our common stock or a combination of cash and shares of our common stock, at our election. Any election to settle conversions of convertible senior notes with cash could adversely affect our liquidity.

Transactions relating to the convertible senior notes may dilute the ownership interests of our existing stockholders or adversely affect the market price of our common stock.

The conversion of some or all of either series of convertible senior notes would dilute the ownership interests of our existing stockholders to the extent we satisfy our conversion obligation by delivering shares of our common stock. In this regard, if holders of the convertible senior notes elect to convert their notes during one of the specified conversion periods referred to above, we may settle our conversion obligations by delivering to them cash, shares of our common stock or a combination thereof. In addition, we may issue shares of our common stock in connection with repurchases, exchanges or other transactions involving the convertible senior notes, such as the 2023 Note Repurchase Transactions, which involved the issuance of 2,723,581 shares of our common stock to certain holders of the 2023 convertible senior notes. We received elections to convert a limited number of 2023 convertible senior notes in the fourth quarter of 2019, and first and second quarters of 2020. We have elected to satisfy our obligations through the payment of cash in certain circumstances, and the issuance of shares of common stock in other circumstances, to such convertible senior note holders. See Part I, Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operation—Liquidity and Capital Resources, for further discussion of our elections to satisfy our conversion obligations.

In addition, in connection with the issuance of the 2023 convertible senior notes and the 2025 convertible senior notes, we entered into capped call transactions with certain financial institutions, or the Option Counterparties. The capped call transactions are expected generally to reduce the potential dilution to holders of our common stock upon any conversion or settlement of either series of convertible notes and/or offset any cash payments we are required to make in excess of the principal amount of such convertible senior notes, as the case may be, with such reduction and/or offset subject to a cap under the terms of the capped call transactions. We expect that the Option Counterparties or their respective affiliates may from time to time purchase shares of our common stock and/or enter into various derivative transactions with respect to our common stock in connection with their hedging activities relating to the capped call transactions. The Option Counterparties or their respective affiliates also may modify their hedge positions by entering into or unwinding such derivative transactions and/or purchasing or selling our common stock or other securities of ours in secondary market transactions prior to the applicable maturity of either series of convertible senior notes. These activities could negatively affect the market price of our common stock.

The accounting method for convertible debt securities that may be settled in cash, such as both series of convertible senior notes, could have a material effect on our reported financial results.

Under Financial Accounting Standards Board Accounting Standards Codification 470-20, Debt with Conversion and Other Options (“ASC 470-20”), an entity must separately account for the liability and equity components of convertible debt instruments (such as both series of convertible senior notes) that may be settled entirely or partially in cash upon conversion in a manner that reflects the issuer’s economic interest cost. ASC 470-20 requires the value of the conversion option of the applicable series of convertible senior notes, representing the equity component, to be recorded as additional paid-in capital within stockholders’ equity in our consolidated balance sheet and as a discount to the applicable series convertible senior notes, which reduces their initial carrying value. The carrying value of the applicable series of convertible senior notes, net of the discount recorded, will be accreted up to the principal amount of such series of convertible senior notes from the issuance date until the applicable maturity date, which will result in non-cash charges to interest expense in our consolidated statement of operations. Accordingly, we will report lower net income or higher net loss in our financial results because ASC 470-20 requires interest to include both the current period’s accretion of the debt discount and the instrument’s coupon interest, which could adversely affect our reported or future financial results, the trading price of our common stock and the trading price of either or both series of convertible senior notes.

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

Not applicable.

ITEM 3. Defaults Upon Senior Securities

None.

ITEM 4. Mine Safety Disclosures

Not applicable.

ITEM 5. Other Information

None.

ITEM 6. Exhibits

Exhibit Number	Description
3.1	Amended and Restated Bylaws of Five9, Inc. (filed as Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the SEC on August 3, 2020 (File No. 001-36383) and incorporated by reference herein).
4.1	Indenture, dated as of May 27, 2020, between Five 9, Inc. and U.S. Bank National Association, as trustee (filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the SEC on May 28, 2020 (File No. 001-36383) and incorporated by reference herein).
4.2	Form of 0.500% Convertible Senior Notes due 2025 (filed as Exhibit 4.2 to the Company's Current Report on Form 8-K filed with the SEC on May 28, 2020 (File No. 001-36383) and incorporated by reference herein).
10.1	Form of Capped Call Confirmation (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on May 28, 2020 (File No. 001-36383) and incorporated by reference herein).
10.2	Bishop Ranch Building Lease, dated July 29, 2020, between Five9, Inc. and 2600 CR, LLC (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on August 3, 2020 (File No. 001-36383) and incorporated by reference herein).
10.3+*	Chairman of the Board Agreement
31.1*	Certification of Chief Executive Officer of Five9, Inc. Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Chief Financial Officer of Five9, Inc. Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1**	Certification of Chief Executive Officer and Chief Financial Officer of Five9, Inc. Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS*	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH*	XBRL Taxonomy Schema Linkbase Document
101.CAL*	XBRL Taxonomy Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Definition Linkbase Document
101.LAB*	XBRL Taxonomy Labels Linkbase Document
101.PRE*	XBRL Taxonomy Presentation Linkbase Document
104	Cover Page Interactive Data File. Formatted as inline XBRL and contained in Exhibit 101.

+ Indicates management contract or compensatory plan.

* Filed herewith.

** Furnished herewith.

SIGNATURES

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

			Five9, Inc.
Date:	August 3, 2020	By:	/s/ Rowan Trollope
			Rowan Trollope
			Chief Executive Officer
			(Principal Executive Officer)
			/s/ Barry Zwarenstein
			Barry Zwarenstein
			Chief Financial Officer
			(Principal Financial Officer and Principal Accounting Officer)

Chairman of the Board Agreement

This Agreement is entered into as of 06/22/2020 14:03 PDT, by and between Five9, Inc., a Delaware corporation (hereinafter, "Company"), and Michael Burkland (hereinafter "Chairman") to be effective as of the date hereof (the "Effective Date"). The Company and Chairman are jointly referred to herein as the "Parties" and in some cases individually as a "Party."

BACKGROUND

A. Chairman was employed by Company as its Chief Executive Officer and President pursuant the Executive Employment Agreement dated January 1, 2012 between the Parties ("Employment Agreement").

B. On November 3, 2017, Chairman voluntarily resigned from the positions of Chief Executive Officer and President of the Company effective December 2, 2017 ("Resignation Effective Date").

C. Chairman has served as the Executive Chairman of the Board of Directors of the Company (the "Board") since December 2, 2017 pursuant to an Independent Contractor Agreement dated as of November 3, 2017 (the "Contractor Agreement"), and was appointed as Chairman of the Board (in lieu of Executive Chairman of the Board) on October 29, 2019;

D. Company and Chairman desire to terminate the Contractor Agreement effective as of December 31, 2019 and formally set forth the terms under which Chairman will serve as an independent contractor as Chairman of the Board, and the services to be provided by Chairman in such role, as set forth herein.

AGREEMENT

In consideration of the mutual promises and agreements herein contained, Company and Chairman agree as follows:

1. EMPLOYMENT AGREEMENT AND KESP: Chairman acknowledges and agrees that all of Chairman's rights under the Employment Agreement and the Company's Key Employee Severance Benefit Plan ("KESP") were terminated and ceased as of the Resignation Effective Date based on Chairman's voluntary resignation, Chairman is not eligible to receive any compensation or benefits under the Employment Agreement or under the KESP based on Chairman's voluntary resignation, and the Company has no continuing obligations to Chairman under the Employment Agreement or KESP.

2. SERVICES: Chairman shall perform the services of Chairman set forth in the Company's Amended and Restated Bylaws, as amended from time to time, and such

other services as are generally attendant to such role and title (collectively, "Services").

3. CONFIDENTIALITY, TRADE SECRETS, PROPRIETARY RIGHTS INTELLECTUAL PROPERTY: Chairman and Company hereby agree that all of the restrictions, obligations and provisions set forth in the Agreement Regarding Confidential Information, Intellectual Property Non-Solicitation between them dated April 16, 2012, shall remain in full force and effect in accordance with its terms.

4. TERM/SURVIVAL: This Agreement shall begin on the Effective Date, and either Party may terminate this Agreement (effective immediately, or at such other time as is set forth in the notice of termination), with or without cause, at any time and for any reason ("Term"). The termination of this Agreement shall not affect Chairman's continued service on the Board nor his rights under Sections 5(b) (provided he continues to serve as a director on the Board), 5(c), 5(d), and 5(e). Sections (3), (6), (7), (8), (9), (10), (11) and (12) of this Agreement shall also survive the termination of this Agreement.

5. COMPENSATION AND BENEFITS:

(a) Cash Compensation: During the Term, Company shall pay Chairman $105,000 in cash per year, payable quarterly in arrears for all efforts expended by Chairman in performance of Services hereunder.

(b) Equity Compensation: Chairman shall be entitled to receive such annual equity grants, in the same form and amount and on the same terms, as are issued to the Company's other non-employee Board members pursuant to the Company's Non-Employee Director Compensation Policy, as amended or revised from time to time (the "Policy"), for so long as he remains a member of the Board. Chairman shall not be entitled to any other equity grants or awards for his service as Chairman or as a director on the Board, unless otherwise approved by the Board or the Compensation Committee of the Board. From and after termination of this Agreement and for so long as Chairman continues to serve as a director on the Board, Chairman shall be entitled to receive such cash compensation, in the same form and amount, and on the same terms, as is paid to the Company's other non-employee Board members pursuant to the Policy (provided that Chairman shall not be entitled to any committee or other fees provided under the Policy unless he actually serves in such roles or on such committee(s)).

(c) Equity Vesting: All compensatory equity awards granted to Chairman by Company prior to the date hereof shall continue vesting following the Effective Date subject to the terms of the Company's applicable plans and other applicable agreements between the Parties, subject to his continued service with the Company as a director on the Board. In addition, all compensatory equity awards granted to Chairman prior to the Resignation Effective Date (the "CEO Equity Awards") shall vest in full (to the extent they have not vested already) to the extent he ceases to serve as a member of the Board other than due to his voluntary resignation. For the avoidance of doubt, (i) if Chairman is asked by the Board to resign from the Board, (ii) he dies or (iii) he leaves the Board due to a disability (as defined in the Company's 2014 Equity Incentive Plan), his resignation or cessation of service as a member of the Board shall not be deemed voluntary for purposes of the preceding sentence. Chairman shall receive full vesting acceleration of Chairman's then-unvested and outstanding CEO Equity Awards immediately prior to a Change in Control (as defined in the Company's 2014 Equity Incentive Plan), subject to his continued service with the Company as a director on the Board through such time. Chairman re-confirms that this Section 5(c) constitutes an amendment to the definition of Continuous Service (as defined in the Company's 2014 Equity Incentive Plan) with respect to such compensatory equity awards.

(d) <u>Chairman Emeritus</u>: Beginning on the date that Chairman ceases to serve on the Board for any reason (unless he is terminated or resigns under circumstances that would constitute "Cause" as such term is defined in the Company's 2014 Equity Incentive Plan) and ending on the earlier to occur of (i) a Change in Control of the Company (as defined in the Company's 2014 Equity Incentive Plan), or (ii) Chairman's death, Chairman shall carry the title of "Chairman Emeritus" of the Company, which shall be a non-fiduciary role and shall carry with it no authority, duties or responsibilities, and for which Chairman shall receive no compensation of any kind.

(e) <u>Healthcare Coverage/Reimbursement:</u> (i) Subject to the other provisions of this Agreement, Chairman shall be eligible to be covered under the major medical, dental and vision benefit programs that are currently or in the future sponsored by the Company (or an entity in its controlled group), and which are generally available to active employees (the "Health Plan"), during his tenure as a director on the Board. Subject to the other provisions of this Agreement, at such time as Chairman ceases to serve as a director on the Board, Chairman shall continue to be eligible to be covered under the Health Plan as a former employee of the Company. To the extent that Chairman is eligible to be covered under the Health Plan as set forth in this Agreement, the Chairman can elect to cover his spouse and any eligible dependents (each as defined in the Health Plan) under the Health Plan, all in accordance with the generally applicable provisions of the plan documents regarding coverage of spouses and eligible dependents.

(ii) Subject to the other provisions of this Agreement, from and after such time as Chairman or a covered spouse or eligible dependent is eligible for Medicare

Part A and Part B (collectively, “Medicare”), the Health Plan will pay secondary to Medicare, in accordance with the generally applicable provisions of the plan documents, and without regard to whether such person is actually enrolled in Medicare Part A or Part B.

(iii) The Company shall pay 100% of the cost of the Health Plan premiums for Chairman’s coverage and the coverage of his covered spouse and eligible dependents. Notwithstanding the foregoing sentence of this Section 5(e)(iii), if any program under the Health Plan becomes self-funded (in whole or in part), for the program that is self-funded: (1) Chairman shall pay the Company for the cost of such self-funded coverage, calculated in the same manner as COBRA, for his and his covered spouse’s and eligible dependents’ coverage using his own post-tax resources and (2) such payment will be due to the Company with respect to each month of coverage within sixty (60) days of the first day of the month of coverage. For example, if the major medical plan first becomes self-funded as of January 1, 2021 and the dental and vision plans are fully-insured as of that date, Chairman must pay the Company for the cost of the January coverage under the major medical plan by February 28, 2021 and no payment is owed by Chairman to the Company for the premiums related to the vision and dental plans for that month. The Company is required to inform Chairman as soon as reasonably possible in writing if any Health Plan program is self-funded to ensure that Chairman is aware of any obligation to pay the Company for any portion of the cost of coverage under the Health Plan.

(iv) Notwithstanding anything herein to the contrary, Chairman (and his spouse and eligible dependents) shall only be entitled to coverage under the Health Plan to the extent that such coverage complies, or using commercially reasonable efforts can be modified to comply (for example, by making the cost of coverage taxable to Chairman), with the nondiscrimination requirements set forth in Internal Revenue Code (the “Code”) Section 105(h) and Section 2716 of the Public Health Service Act, as incorporated into the Code and the Employee Retirement Income Security Act of 1974, as amended. In the event that Company in good faith determines that the Health Plan cannot be modified using commercially reasonable efforts (a “Nondiscrimination Event”) the provisions of Section 5(e)(vii) shall apply.

(v) During the time that Chairman serves as a director on the Board and Company has Aetna as the insurance carrier or third-party administrator for the major medical benefit program, Chairman (and his spouse and eligible dependents) shall remain eligible for the major medical benefit program coverage under the Health Plan.

(vi) If Chairman ceases to serve as a director on the Board or the Company no longer has Aetna as the insurance carrier or third-party administrator for the major medical benefit program, the Company will use commercially reasonable efforts to continue being able to provide ongoing coverage ("Ongoing Coverage") for Chairman (and his spouse and eligible dependents) in each of the programs under the Health Plan. In the event that the Company determines in good faith that in using its commercially reasonable efforts it is unable to obtain commercially reasonable Ongoing Coverage, Company will provide a runway in order to allow Chairman a period of time to transition to alternative coverage for the program that is no longer available. Company shall provide Chairman with at least thirty (30) days prior written notice before coverage under any of the Health Plan programs is terminated, and this prior written notice requirement applies separately to each program under the Health Plan. This runway shall begin no later than thirty (30) days prior to the last day of the last plan year in which the Company has determined, in good faith, that it can provide Ongoing Coverage for the program to Chairman (such last day, the "Ongoing Coverage Ending Date"). The runway shall continue for a period ending on the earlier of (A) the 12 month anniversary of the Ongoing Coverage Ending Date and (B) the last date for which the Company is able to negotiate, using commercially reasonable efforts, continued coverage for Chairman in such program after the Ongoing Coverage Ending Date. For the avoidance of doubt, the obligation described in this paragraph shall apply separately to each of the major medical, dental, and vision programs.

(vii) In the event that Chairman ceases to be eligible for Ongoing Coverage in the major medical program under the Health Plan in accordance with Section 5(e)(vi) or a Nondiscrimination Event has occurred, Company shall establish a retiree-only employer payment plan under Code Section 106 ("EPP") that will reimburse Chairman, on a non-taxable basis, for the amount of individual health insurance premiums incurred for coverage for himself and his spouse and eligible dependents. The Company shall credit Chairman's account under the EPP with $45,000 per year during Chairman's lifetime to be used during such year as described above, with any amounts unused during the year forfeited to the Company.

For the avoidance of doubt, no survivor coverage is available under this section 5(e).

(f) <u>Expenses</u>: With the approval of the Board or the Company's Chief Executive Officer, Company shall reimburse Chairman for reasonable expenses incurred (consistent with the Company's reimbursement practices for its executive officers, as in effect from time to time) by him in connection with the performance of Services under this Agreement. Upon termination of this Agreement, Chairman shall be entitled to reimbursement for any reasonable expenses incurred prior to the date of termination and previously approved by the Board or the Company's Chief Executive Officer.

(g) No Further Compensation: Unless approved by the Board or the Compensation Committee of the Board (or as otherwise set forth in this Agreement), Chairman shall not receive any additional compensation for his service on the Board or as Chairman, including under the Company's Non-Employee Director Compensation Policy.

6. ASSIGNMENT: It is mutually acknowledged that this Agreement contemplates the personal services of Chairman and, accordingly, this Agreement or any rights hereunder or interest herein may not be assigned, transferred or otherwise delegated by Chairman. Any attempted sale, assignment, transfer, conveyance, or delegation by Chairman in violation of this Section 6 shall be void.

7. TERMINATION OF CONSULTING AGREEMENT: The Parties hereby terminate the Consulting Agreement and any and all obligations thereunder, effective as of December 31, 2019, which Consulting Agreement is hereby replaced in its entirety by this Agreement.

8. STATUS OF CHAIRMAN:

(a) Chairman enters into this Agreement as, and intends to continue to be, an independent contractor. Chairman acknowledges that as an independent contractor Chairman is undertaking certain risks of loss not associated with an employment relationship. Under no circumstances shall Chairman look to Company or a subsidiary or affiliate of Company as his employer.

(b) Chairman will be solely responsible for payment of all taxes owed, including payment, if any, of employment related taxes and Worker's Compensation Insurance (i.e., FICA, Federal, State, Local, etc.).

9. EQUIPMENT AND FACILITIES: Chairman may use equipment and facilities of Company provided such are available and such equipment and facilities shall be used solely at Company's discretion. In the event of voluntary or involuntary termination of this Agreement, all equipment and/or other property of Company, including without limitation all code, development tools, and other technology that were supplied by Company, or a client of Company, to Chairman, as well as notes, reports, documentation, and drawings pertaining to such code and technologies, or other trade secret information shall be returned to Company by Chairman upon the effective date of termination. Chairman shall be responsible for providing his own software and hardware as required for performance of the Services. In the event that Chairman does not possess items which are deemed necessary, Company may provide them and then Company shall retain ownership after the Term.

10. ARBITRATION: Any dispute relating to the interpretation or performance of this Agreement shall be resolved at the request of either Party through binding arbitration conducted in Alameda County, California, in accordance with the then-existing rules of the American Arbitration Association. Judgment upon any award

by the arbitrators may be entered by the state or federal court having jurisdiction. The Parties intend that this Agreement to Arbitrate be irrevocable.

11. NOTICES: Any notices in connection with the subject matter of this Agreement shall be in writing and shall be effective when delivered personally to the other Party for whom intended, or within five (5) days following deposit of same into the United States mail, certified mail, return receipt requested, first class postage prepaid, addressed to such Party at the address set forth below its signature to this Agreement. Either Party may designate a different address by notice to the other Party given in accordance herewith. In the alternative, a Party may give notice to the other Party via email, which, in the case of Company, shall be directed to Company's then-current Chief Executive Officer at his or her @five9.com email address, and, in the case of Chairman, shall be directed to his @five9.com email address and to his personal email address then in effect and for which notice has been provided by Chairman to the Company in accordance with this section.

12. GENERAL PROVISIONS:

(a) This Agreement shall be governed by and construed in accordance with the laws of the State of California.

(b) This Agreement may not be changed or modified, in whole or part, except by a writing signed by both Parties.

(c) If any provision of this Agreement shall be found to be invalid or unenforceable, such invalid or unenforceable provision shall be replaced by a valid and enforceable provision that as closely as possible reflects the intent of the Parties, and the remaining provisions shall nevertheless remain in full force and effect.

(d) This Agreement sets forth the entire understanding between the Parties with respect to the subject matter hereof. It replaces and supersedes any other agreement, representation, or promise which may have existed between the Parties, including the Consulting Agreement.

(e) This Agreement is binding upon and shall inure to the benefit of the legal successors and assigns of the Parties.

[*Signature page follows*]

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

Chairman: **Company:**

/s/ Michael Burkland /s/ Rowan Trollope
Michael Burkland By: Rowan Trollope
Title: Chief Executive Officer

Address:

"[***]"

"[***]"

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002

I, Rowan Trollope, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Five9, Inc. for the quarter ended June 30, 2020;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date:	August 3, 2020	By:	/s/ Rowan Trollope
			Rowan Trollope
			Chief Executive Officer
			(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER

PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002

I, Barry Zwarenstein, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Five9, Inc. for the quarter ended June 30, 2020;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date:	August 3, 2020	By:	/s/ Barry Zwarenstein
			Barry Zwarenstein
			Chief Financial Officer
			(Principal Financial Officer)

Exhibit 32.1

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Rowan Trollope, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of Five9, Inc. (the “Company”) on Form 10-Q for the fiscal quarter ended June 30, 2020 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Quarterly Report on Form 10-Q fairly presents in all material respects the financial condition and results of operations of the Company.

Date: August 3, 2020

By: /s/ Rowan Trollope
Rowan Trollope
Chief Executive Officer

I, Barry Zwarenstein, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of Five9, Inc. (the “Company”) on Form 10-Q for the fiscal quarter ended June 30, 2020 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Quarterly Report on Form 10-Q fairly presents in all material respects the financial condition and results of operations of the Company.

Date: August 3, 2020

By: /s/ Barry Zwarenstein
Barry Zwarenstein
Chief Financial Officer

This certification accompanies the Form 10-Q to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Five9, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-Q), irrespective of any general incorporation language contained in such filing.