# 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, 2019 **.**

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 **001-36350**

# Q2 Holdings, Inc.

Exact Name of Registrant as Specified in its Charter

| | |
|---|---|
| **Delaware** | **20-2706637** |
| State or Other Jurisdiction of Incorporation or Organization | I.R.S. Employer Identification No. |
| **13785 Research Blvd., Suite 150** | |
| **Austin, Texas** | **78750** |
| Address of Principal Executive Offices | Zip Code |

**( 512 ) 275-0072**

Registrant's Telephone Number, Including Area Code

**Not Applicable**

Former Name, Former Address and Former Fiscal Year, if Changed Since Last Report

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

| Title of each class | Trading Symbol(s) | Name of each exchange on which registered |
|---|---|---|
| Common Stock, $0.0001 par value | QTWO | New York Stock Exchange |

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

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

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

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

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

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date: 47,630,382 shares of Common Stock, $0.0001 par value per share as of July 31, 2019 .

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## PART I - FINANCIAL INFORMATION

### Item 1. Financial Statements.

**Q2 HOLDINGS, INC.**
**CONDENSED CONSOLIDATED BALANCE SHEETS**
**(in thousands, except per share data)**

| | June 30, 2019 | December 31, 2018 |
|---|---|---|
| | (unaudited) | |
| **Assets** | | |
| Current assets: | | |
| Cash and cash equivalents | $ 582,889 | $ 108,341 |
| Restricted cash | 2,158 | 1,815 |
| Investments | 34,810 | 68,979 |
| Accounts receivable, net | 26,591 | 19,668 |
| Contract assets, current portion | 771 | 598 |
| Prepaid expenses and other current assets | 5,526 | 3,983 |
| Deferred solution and other costs, current portion | 12,726 | 10,501 |
| Deferred implementation costs, current portion | 4,400 | 4,427 |
| Total current assets | 669,871 | 218,312 |
| Property and equipment, net | 39,732 | 34,994 |
| Right of use assets | 24,444 | — |
| Deferred solution and other costs, net of current portion | 22,618 | 16,761 |
| Deferred implementation costs, net of current portion | 13,238 | 9,948 |
| Intangible assets, net | 57,213 | 63,296 |
| Goodwill | 107,857 | 107,907 |
| Contract assets, net of current portion | 13,277 | 10,272 |
| Other long-term assets | 3,532 | 2,230 |
| Total assets | $ 951,782 | $ 463,720 |
| **Liabilities and stockholders' equity** | | |
| Current liabilities: | | |
| Accounts payable | $ 8,357 | $ 9,169 |
| Accrued liabilities | 10,149 | 9,329 |
| Accrued compensation | 28,427 | 12,652 |
| Deferred revenues, current portion | 46,023 | 42,531 |
| Lease liabilities, current portion | 6,725 | — |
| Total current liabilities | 99,681 | 73,681 |
| Convertible notes, net of current portion | 413,890 | 182,723 |
| Deferred revenues, net of current portion | 25,317 | 23,063 |
| Deferred rent, net of current portion | — | 8,151 |
| Lease liabilities, net of current portion | 26,533 | — |
| Other long-term liabilities | 499 | 17,202 |
| Total liabilities | 565,920 | 304,820 |
| Commitments and contingencies (Note 7) | | |
| Stockholders' equity: | | |
| Preferred stock: $0.0001 par value; 5,000 shares authorized; no shares issued or outstanding as of June 30, 2019 and December 31, 2018 | — | — |
| Common stock: $0.0001 par value; 150,000 shares authorized; 47,570 issued and outstanding as of June 30, 2019 and 43,535 shares issued and outstanding as of December 31, 2018 | 5 | 4 |
| Additional paid-in capital | 594,757 | 331,355 |
| Accumulated other comprehensive income/(loss) | 164 | (37) |
| Accumulated deficit | (209,064) | (172,422) |
| Total stockholders' equity | 385,862 | 158,900 |
| Total liabilities and stockholders' equity | $ 951,782 | $ 463,720 |

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

**Q2 HOLDINGS, INC.**
**CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS**
**(unaudited)**
**(in thousands, except per share data)**

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2019 | 2018 | 2019 | 2018 |
| Revenues | $ 77,646 | $ 58,574 | $ 148,942 | $ 113,382 |
| Cost of revenues [1] | 40,052 | 29,303 | 77,236 | 56,280 |
| Gross profit | 37,594 | 29,271 | 71,706 | 57,102 |
| Operating expenses: | | | | |
| Sales and marketing [1] | 15,866 | 12,108 | 31,671 | 23,074 |
| Research and development [1] | 19,118 | 11,756 | 36,775 | 22,913 |
| General and administrative [1] | 14,079 | 10,798 | 27,939 | 21,094 |
| Acquisition related costs | 1,977 | 258 | 4,695 | 514 |
| Amortization of acquired intangibles | 905 | 368 | 2,120 | 736 |
| Unoccupied lease charges | — | 658 | — | 658 |
| Total operating expenses | 51,945 | 35,946 | 103,200 | 68,989 |
| Loss from operations | (14,351) | (6,675) | (31,494) | (11,887) |
| Other income (expense): | | | | |
| Interest and other income | 856 | 755 | 1,663 | 954 |
| Interest and other expense | (4,073) | (2,860) | (7,087) | (4,082) |
| Total other income (expense), net | (3,217) | (2,105) | (5,424) | (3,128) |
| Loss before income taxes | (17,568) | (8,780) | (36,918) | (15,015) |
| Benefit from income taxes | 237 | 153 | 276 | 340 |
| Net loss | $ (17,331) | $ (8,627) | $ (36,642) | $ (14,675) |
| Other comprehensive loss: | | | | |
| Unrealized gain (loss) on available-for-sale investments | 97 | 2 | 210 | (22) |
| Foreign currency translation adjustment | (22) | — | (10) | — |
| Comprehensive loss | $ (17,256) | $ (8,625) | $ (36,442) | $ (14,697) |
| Net loss per common share, basic and diluted | $ (0.39) | $ (0.20) | $ (0.83) | $ (0.35) |
| Weighted average common shares outstanding: | | | | |
| Basic and diluted | 44,978 | 42,605 | 44,382 | 42,389 |

[1] Includes stock-based compensation expenses as follows:

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2019 | 2018 | 2019 | 2018 |
| Cost of revenues | $ 1,428 | $ 1,065 | $ 2,976 | $ 2,080 |
| Sales and marketing | 1,596 | 1,428 | 3,402 | 2,654 |
| Research and development | 2,473 | 1,566 | 4,485 | 2,922 |
| General and administrative | 4,072 | 2,945 | 7,602 | 5,443 |
| Total stock-based compensation expenses | $ 9,569 | $ 7,004 | $ 18,465 | $ 13,099 |

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

**Q2 HOLDINGS INC.**
**CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY**
**(unaudited)**
**(in thousands)**

| | Common Stock | | Treasury Stock | Additional Paid-In Capital | Accumulated Other Comprehensive Income/(Loss) | Accumulated Deficit | Total Stockholders' Equity |
|---|---|---|---|---|---|---|---|
| | Shares | Amount | | | | | |
| Balance at December 31, 2017 | 41,967 | $ 4 | $ (855) | $ 259,726 | $ (139) | $ (152,114) | $ 106,622 |
| Stock-based compensation expense | — | — | — | 6,165 | — | — | 6,165 |
| Exercise of stock options | 268 | — | — | 2,761 | — | — | 2,761 |
| Shares acquired to settle the exercise of stock options | (1) | — | (62) | — | — | — | (62) |
| Shares issued for the vesting of restricted stock awards | 171 | — | — | — | — | — | — |
| Retirement of treasury stock | — | — | 917 | (164) | — | (753) | — |
| Equity component of convertible senior notes, less issuance costs | — | — | — | 48,919 | — | — | 48,919 |
| Purchase of convertible notes bond hedge | — | — | — | (41,699) | — | — | (41,699) |
| Issuance of warrants | — | — | — | 22,379 | — | — | 22,379 |
| Cumulative effect of the adoption of new accounting standard | — | — | — | — | — | 15,842 | 15,842 |
| Other comprehensive loss | — | — | — | — | (24) | — | (24) |
| Net loss | — | — | — | — | — | (6,048) | (6,048) |
| Balance at March 31, 2018 | 42,405 | $ 4 | $ — | $ 298,087 | $ (163) | $ (143,073) | $ 154,855 |
| Stock-based compensation expense | — | — | — | 7,087 | — | — | 7,087 |
| Exercise of stock options | 386 | — | — | 5,023 | — | — | 5,023 |
| Shares acquired to settle the exercise of stock options | (1) | — | — | (34) | — | — | (34) |
| Shares issued for the vesting of restricted stock awards | 60 | — | — | — | — | — | — |
| Other comprehensive income | — | — | — | — | 2 | — | 2 |
| Net loss | — | — | — | — | — | (8,627) | (8,627) |
| **Balance at June 30, 2018** | 42,850 | $ 4 | $ — | $ 310,163 | $ (161) | $ (151,700) | $ 158,306 |

| | Common Stock | | Treasury Stock | Additional Paid-In Capital | Accumulated Other Comprehensive Income/(Loss) | Accumulated Deficit | Total Stockholders' Equity |
|---|---|---|---|---|---|---|---|
| | Shares | Amount | | | | | |
| Balance at December 31, 2018 | 43,535 | $ 4 | $ — | $ 331,355 | $ (37) | $ (172,422) | $ 158,900 |
| Stock-based compensation expense | — | — | — | 9,154 | — | — | 9,154 |
| Exercise of stock options | 272 | — | — | 3,741 | — | — | 3,741 |
| Shares acquired to settle the exercise of stock options | (3) | — | — | (217) | — | — | (217) |
| Shares issued for the vesting of restricted stock awards | 312 | — | — | — | — | — | — |
| Other comprehensive income | — | — | — | — | 126 | — | 126 |
| Net loss | — | — | — | — | — | (19,311) | (19,311) |
| Balance at March 31, 2019 | 44,116 | $ 4 | $ — | $ 344,033 | $ 89 | $ (191,733) | $ 152,393 |
| Stock-based compensation expense | — | — | — | 9,886 | — | — | 9,886 |
| Exercise of stock options | 360 | — | — | 5,147 | — | — | 5,147 |
| Shares acquired to settle the exercise of stock options | (3) | — | — | (250) | — | — | (250) |
| Shares issued for the vesting of restricted stock awards | 63 | — | — | — | — | — | — |
| Proceeds from issuance of common stock, net of issuance costs | 3,034 | 1 | — | 195,186 | — | — | 195,187 |
| Equity component of convertible senior notes, less issuance costs | — | — | — | 81,520 | — | — | 81,520 |
| Purchase of capped call transactions | — | — | — | (40,765) | — | — | (40,765) |
| Other comprehensive income | — | — | — | — | 75 | — | 75 |
| Net loss | — | — | — | — | — | (17,331) | (17,331) |
| **Balance at June 30, 2019** | 47,570 | $ 5 | $ — | $ 594,757 | $ 164 | $ (209,064) | $ 385,862 |

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

**Q2 HOLDINGS, INC.**
**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS**
**(unaudited)**
**(in thousands)**

| | Six Months Ended June 30, | |
|---|---|---|
| | **2019** | **2018** |
| **Cash flows from operating activities:** | | |
| Net loss | $ (36,642) | $ (14,675) |
| Adjustments to reconcile net loss to net cash used in operating activities: | | |
| Amortization of deferred implementation, solution and other costs | 6,056 | 4,265 |
| Depreciation and amortization | 11,796 | 7,752 |
| Amortization of debt issuance costs | 545 | 346 |
| Amortization of debt discount | 5,230 | 3,089 |
| Amortization of premiums on investments | 183 | 21 |
| Stock-based compensation expenses | 19,040 | 13,099 |
| Deferred income taxes | (347) | (61) |
| Allowance for sales credits | 114 | 38 |
| Loss on disposal of long-lived assets | (226) | — |
| Unoccupied lease charges | — | 658 |
| Changes in operating assets and liabilities: | | |
| Accounts receivable, net | (7,037) | (13,831) |
| Prepaid expenses and other current assets | (1,543) | (1,718) |
| Deferred solution and other costs | (10,864) | (5,965) |
| Deferred implementation costs | (6,537) | (2,761) |
| Contract assets | (3,178) | (2,212) |
| Other long-term assets | 2,120 | (225) |
| Accounts payable | (189) | (825) |
| Accrued liabilities | (70) | (3,312) |
| Deferred revenues | 5,746 | (4,295) |
| Deferred rent and other long-term liabilities | (2,876) | (672) |
| Net cash used in operating activities | (18,679) | (21,284) |
| **Cash flows from investing activities:** | | |
| Purchases of investments | (24,778) | (74,389) |
| Maturities of investments | 58,974 | 14,058 |
| Purchases of property and equipment | (10,864) | (11,154) |
| Business combinations and asset acquisitions, net of cash acquired | — | (150) |
| Purchases of intangible assets | (288) | — |
| Net cash provided by (used in) investing activities | 23,044 | (71,635) |
| **Cash flows from financing activities:** | | |
| Proceeds from issuance of common stock, net of issuance costs | 195,581 | — |
| Proceeds from issuance of convertible notes, net of issuance costs | 307,288 | 223,185 |
| Purchases of capped call transactions | (40,765) | — |
| Purchase of convertible notes bond hedge | — | (41,699) |
| Proceeds from issuance of warrants | — | 22,379 |
| Proceeds from exercise of stock options to purchase common stock | 8,422 | 7,831 |
| Net cash provided by financing activities | 470,526 | 211,696 |
| Net increase in cash, cash equivalents, and restricted cash | 474,891 | 118,777 |
| Cash, cash equivalents, and restricted cash, beginning of period | 110,156 | 60,276 |
| Cash, cash equivalents, and restricted cash, end of period | $ 585,047 | $ 179,053 |
| **Supplemental disclosures of cash flow information:** | | |
| Cash paid for taxes | $ 161 | $ 130 |
| Cash paid for interest | $ 863 | $ — |
| **Supplemental disclosure of non-cash investing and financing activities:** | | |
| Shares acquired to settle the exercise of stock options | $ (467) | $ (96) |

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

**Q2 HOLDINGS, INC.**
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (unaudited)**
**(in thousands, except per share amounts and unless otherwise indicated)**

## 1. Organization and Description of Business

Q2 Holdings, Inc. and its wholly-owned subsidiaries, collectively the Company, is a leading provider of secure, cloud-based digital solutions that transform the ways in which traditional and emerging financial services providers engage with account holders and end users, or End Users. The Company sells its solutions to regional and community financial institutions, alternative finance and leasing companies, and financial technology companies. The Company's solutions enable customers to deliver robust suites of digital banking, lending, leasing, and banking as a service, or BaaS, services that make it possible for account holders and End Users to transact and engage anytime, anywhere and on any device. The Company delivers its solutions to the substantial majority of its customers using a software-as-a-service, or SaaS, model under which its customers pay subscription fees for the use of the Company's solutions. The Company was incorporated in Delaware in March 2005 and is a holding company that owns 100% of the outstanding capital stock of Q2 Software, Inc. The Company's headquarters are located in Austin, Texas.

## 2. Summary of Significant Accounting Policies

### *Basis of Presentation and Principles of Consolidation*

These interim unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States, or GAAP, and Securities and Exchange Commission, or SEC, requirements for interim financial statements. The interim unaudited condensed consolidated financial statements include the accounts of Q2 Holdings, Inc. and its direct and indirect wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

In the Company's opinion, the accompanying interim unaudited condensed consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements and include all adjustments, consisting of normal, recurring adjustments, necessary for a fair presentation. Certain information and disclosures normally included in the notes to the annual consolidated financial statements prepared in accordance with GAAP have been omitted from these interim unaudited condensed consolidated financial statements pursuant to the rules and regulations of the SEC. Accordingly, these interim unaudited condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and the accompanying notes for the fiscal year ended December 31, 2018 , which are included in the Company's Annual Report on Form 10-K, filed with the SEC on February 19, 2019. The results of operations for the three and six months ended June 30, 2019 are not necessarily indicative of the results to be expected for the year ending December 31, 2019 or for any other period.

### *Use of Estimates*

The preparation of the accompanying interim unaudited condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the interim unaudited condensed consolidated financial statements, and the reported amounts of revenues and expenses. Significant items subject to such estimates include revenue recognition including determining the nature and timing of satisfaction of performance obligations, variable consideration, standalone selling price, and other revenue items requiring significant judgment; stock-based compensation; the carrying value of goodwill; the fair value of acquired intangibles; the capitalization of software development costs; the useful lives of property and equipment and long-lived intangible assets; fair value of contingent consideration; fair value of the conversion features of convertible notes; and income taxes. In accordance with GAAP, management bases its estimates on historical experience and on various other assumptions that management believes are reasonable under the circumstances. Management regularly evaluates its estimates and assumptions using historical experience and other factors; however, actual results could differ significantly from those estimates.

### *Cash and Cash Equivalents*

The Company considers all highly liquid investments acquired with an original maturity of ninety days or less at the date of purchase to be cash equivalents. Cash equivalents are stated at cost or fair value based on the underlying security.

**Q2 HOLDINGS, INC.**
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (unaudited)**
**(in thousands, except per share amounts and unless otherwise indicated)**

***Restricted Cash***

Restricted cash consists of deposits held as collateral for the Company's secured letters of credit or bank guarantee issued in place of the security deposit for the Company's corporate headquarters and various other leases.

***Investments***

Investments consist primarily of U.S. government agency bonds, corporate bonds, commercial paper, certificates of deposit and money market funds. All investments are considered available for sale and are carried at fair value.

***Concentration of Credit Risk***

Financial instruments that potentially subject the Company to concentrations of credit risk consist of cash and cash equivalents, restricted cash, investments and accounts receivable. The Company's cash and cash equivalents, restricted cash and investments are placed with high credit quality financial institutions and issuers, and at times may exceed federally-insured limits. The Company has not experienced any loss relating to cash and cash equivalents or restricted cash in these accounts. The Company provides credit, in the normal course of business, to a number of its customers. The Company performs periodic credit evaluations of its customers' financial condition and generally does not require collateral. No individual customer accounted for 10% or more of revenues for each of the three and six months ended June 30, 2019 and 2018 . No individual customer accounted for 10% or more of accounts receivable, net, as of June 30, 2019 and December 31, 2018 .

***Contract Balances***

The timing of revenue recognition, billings and cash collections can result in billed accounts receivable, unbilled receivables, or contract assets, and deferred revenues, or contract liabilities. Billings scheduled to occur after the performance obligation has been satisfied and revenue recognition has occurred result in contract assets. Contract assets that are expected to be billed during the succeeding twelve-month period are recorded in contract assets, current portion, and the remaining portion is recorded in contract assets, net of current portion on the accompanying condensed consolidated balance sheets at the end of each reporting period. A contract liability results when the Company receives prepayments or deposits from customers in advance for implementation, maintenance and other services, as well as initial subscription fees. Customer prepayments are generally applied against invoices issued to customers when services are performed and billed. The Company recognizes contract liabilities as revenues when the services are performed, and the corresponding revenue recognition criteria are met. Contract liabilities that are expected to be recognized as revenues during the succeeding twelve-month period are recorded in deferred revenues, current portion, and the remaining portion is recorded in deferred revenue, net of current portion, on the accompanying condensed consolidated balance sheets at the end of each reporting period.

***Accounts Receivable***

Accounts receivable are stated at net realizable value, including both billed and unbilled receivables to customers. Unbilled receivable balances arise primarily when the Company provides services in advance of billing for those services. Generally, billing for revenues related to the number of End Users and the number of transactions processed by the Company's End Users that are included in the Company's minimum subscription fee occurs in the month the revenue is recognized, resulting in accounts receivable. Billing for revenues relating to the number of End Users and the number of transactions processed by the Company's End Users that are in excess of the Company's minimum subscription fees are, generally, billed in the month following the month the revenues were earned, resulting in an unbilled receivable. Unbilled receivables of $3.5 million and $3.2 million were included in the accounts receivable balance at June 30, 2019 and December 31, 2018 , respectively.

The Company assesses the collectability of outstanding accounts receivable on an ongoing basis and maintains an allowance for doubtful accounts for accounts receivable deemed uncollectable. As of June 30, 2019 and December 31, 2018 , the Company did not provide for an allowance for doubtful accounts, as all amounts outstanding were deemed collectable. Historically, the Company's collection experience has not varied significantly, and bad debt expenses have been insignificant.

The Company maintains a reserve for estimated sales credits issued to customers for billing disputes or other service-related reasons. This allowance is recorded as a reduction against current period revenues and accounts receivable. In estimating this allowance, the Company analyzes prior periods to determine the amounts of sales credits issued to customers compared to the revenues in the period that related to the original customer invoice. This estimate is analyzed quarterly and adjusted as necessary. The allowance for sales credits was $0.5 million and $0.4 million as of June 30, 2019 and December 31, 2018 , respectively.

***Deferred Revenues***

Deferred revenues primarily consist of amounts that have been billed to or received from customers in advance of revenue recognition and prepayments received from customers in advance for implementation, maintenance and other services, as well as initial subscription fees. The Company recognizes deferred revenues as revenues when the services are performed and the corresponding revenue recognition criteria are met. Customer prepayments are generally applied against invoices issued to customers when services are performed and billed.

The net increase in the deferred revenue balance for the six months ended June 30, 2019 is primarily driven by cash payments received or due in advance of satisfying the Company's performance obligations of $23.0 million partially offset by the recognition of $14.7 million of revenue that was included in the deferred revenue balance at December 31, 2018 and a $2.5 million decrease from the netting of contract assets and liabilities on a contract-by-contract basis. Amounts recognized from deferred revenues represent primarily revenue from the sale of subscription and implementation services.

The Company's payment terms vary by the type and location of its customer and the products or services offered. The term between invoicing and when payment is due is not significant. For certain products or services and customer types, the Company requires payment before the products or services are delivered to the customer.

On June 30, 2019 , the Company had $917.0 million of remaining performance obligations, which represents contracted revenue minimums that have not yet been recognized, including amounts that will be invoiced and recognized as revenue in future periods. The Company expects to recognize approximately 49% percent of its remaining performance obligations as revenue in the next 24 months, an additional 40% percent in the next 25 to 48 months, and the balance thereafter.

***Deferred Implementation Costs***

The Company capitalizes certain personnel and other costs such as employee salaries, benefits and the associated payroll taxes that are direct and incremental to the implementation of its solutions. The Company analyzes implementation costs that may be capitalized to assess their recoverability, and only capitalizes costs that it anticipates to be recoverable. The Company assesses the recoverability of its deferred implementation costs by comparing the greater of the amount of the non-cancellable portion of a customer's contract and the non-refundable customer prepayments received as it relates to the specific implementation costs incurred. The Company begins amortizing the deferred implementation costs for an implementation once the revenue recognition criteria have been met, and the Company amortizes those deferred implementation costs ratably over the expected period of customer benefit, which has been determined to be the estimated life of the technology, which the Company estimates to be five to seven years . The Company determined the period of benefit by considering factors such as historically high renewal rates with similar customers and contracts, initial contract length, an expectation that there will still be a demand for the product at the end of its term, and the significant costs to switch to a competitor's product, all of which are governed by the estimated useful life of the technology.

The portion of deferred implementation costs expected to be amortized during the succeeding twelve-month period is recorded in current assets as deferred implementation costs, current portion, and the remainder is recorded in long-term assets as deferred implementation costs, net of current portion on the condensed consolidated balance sheet. The Company capitalized implementation costs in the amount of $3.1 million and $1.5 million during the three months ended June 30, 2019 and 2018 , respectively, and recognized $1.8 million and $1.2 million of amortization during the three months ended June 30, 2019 and 2018 , respectively. The Company capitalized implementation costs in the amount of $5.8 million and $3.1 million during the six months ended June 30, 2019 and 2018 , respectively, and recognized $3.3 million and $2.4 million of amortization during the six months ended June 30, 2019 and 2018 , respectively. Amortization expense is included in cost of revenues in the accompanying condensed consolidated statements of comprehensive loss.

***Deferred Solution and Other Costs***

The Company capitalizes sales commissions and other third-party costs such as third-party licenses and maintenance related to its customer agreements. The Company capitalizes sales commissions because the commission charges are so closely related to the revenues from the non-cancellable customer agreements that they should be recorded as an asset and charged to expense over the same period that the related revenue is recognized. The Company capitalizes commissions and bonuses for those involved in the sale, including direct employees and indirect supervisors, as these are incremental to the sale. The

(in thousands, except per share amounts and unless otherwise indicated)

Company typically pays commissions in two increments. The initial payment is made after the contract has been executed and the initial deposit has been received from the customer, and the final payment is made upon commencement date. The Company requires that an individual remain employed to collect a commission when it is due. The service period between the first and second payment is considered to be a substantive service period, and as a result, the Company expenses the final payment when made. The Company begins amortizing deferred solution and other costs for a particular customer agreement once the revenue recognition criteria are met and amortizes those deferred costs over the expected period of customer benefit, which has been determined to be the estimated life of the technology, which the Company estimates to be five to seven years . The Company determined the period of benefit by considering factors such as historically high renewal rates with similar customers and contracts, initial contract length, an expectation that there will still be a demand for the product at the end of its term, and the significant costs to switch to a competitor's product, all of which are governed by the estimated useful life of the technology.

The Company analyzes solution and other costs that may be capitalized to assess their recoverability and only capitalizes costs that it anticipates being recoverable. The portion of capitalized costs expected to be amortized during the succeeding twelve-month period is recorded in current assets as deferred solution and other costs, current portion, and the remainder is recorded in long-term assets as deferred solution and other costs, net of current portion. The Company capitalized $2.8 million and $1.5 million in deferred commissions costs during the three months ended June 30, 2019 and 2018 , respectively, and recognized $1.4 million and $0.8 million of amortization during the three months ended June 30, 2019 and 2018 , respectively. The Company capitalized $8.3 million and $3.9 million in deferred commissions costs during the six months ended June 30, 2019 and 2018 , respectively, and recognized $2.8 million and $1.7 million of amortization during the six months ended June 30, 2019 and 2018 , respectively. Amortization expense is included in sales and marketing expenses in the accompanying condensed consolidated statements of comprehensive loss.

***Property and Equipment***

Property and equipment are stated at cost less accumulated depreciation and amortization. Depreciation is calculated on a straight-line basis over the estimated useful lives of the related assets. Leasehold improvements are amortized over the shorter of the lease term or the estimated useful lives of the related assets. Maintenance and repairs that do not extend the life of or improve an asset are expensed in the period incurred.

The estimated useful lives of property and equipment are as follows:

| | |
|---|---|
| Computer hardware and equipment | 3 - 5 years |
| Purchased software and licenses | 3 - 5 years |
| Furniture and fixtures | 7 years |
| Leasehold improvements | Lesser of estimated useful life or lease term |

***Purchase Price Allocation, Intangible Assets, and Goodwill***

The purchase price allocation for business combinations and asset acquisitions requires extensive use of accounting estimates and judgments to allocate the purchase price to the identifiable tangible and intangible assets acquired and liabilities assumed based on their respective fair values. The Company determines whether substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or a group of similar identifiable assets. If this threshold is met, the single asset or group of assets, as applicable, is not a business. If it is not met, the Company determines whether the single asset or group of assets, as applicable, meets the definition of a business.

In connection with the Company's acquisitions discussed in Note 3 - Business Combinations, the Company recorded certain intangible assets, including acquired technology, customer relationships, trademarks, non-compete agreements and assembled workforce. Amounts allocated to the acquired intangible assets are being amortized on a straight-line basis over the estimated useful lives. The Company periodically reviews the estimated useful lives and fair values of its identifiable intangible assets, taking into consideration any events or circumstances which might result in a diminished fair value or revised useful life.

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The excess purchase price over the fair value of assets acquired is recorded as goodwill. The Company tests goodwill for impairment annually in October, or whenever events or changes in circumstances indicate an impairment may have occurred. Because the Company operates in a single reporting unit, the impairment test is performed at the consolidated entity level by comparing the estimated fair value of the Company to the carrying value of the Company. The Company estimates the fair value of the reporting unit using a "step one" analysis using a fair-value-based approach based on the market capitalization or a discounted cash flow analysis of projected future results to determine if it is more likely than not that the fair value of a reporting unit is less than its carrying amount. Determining the fair value of goodwill is subjective in nature and often involves the use of estimates and assumptions including, without limitation, use of estimates of future prices and volumes for the Company's products, capital needs, economic trends and other factors which are inherently difficult to forecast. If actual results, or the plans and estimates used in future impairment analyses are lower than the original estimates used to assess the recoverability of these assets, the Company could incur impairment charges in a future period.

***Revenues***

Revenues are recognized when control of the promised goods or services is transferred to the Company's customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods or services over the term of the agreement, generally when the Company's solutions are implemented and made available to the customers. The promised consideration may include fixed amounts, variable amounts or both. Revenues are recognized net of sales credits and allowances.

Revenue-generating activities are directly related to the sale, implementation and support of the Company's solutions within a single operating segment. The Company derives the majority of its revenues from subscription fees for the use of its solutions hosted in either the Company's data centers or cloud-based hosting services, transaction revenue from bill-pay solutions, as well as revenues for customer support and implementation services related to the Company's solutions. The Company recognizes the corresponding revenues over time on a ratable basis over the customer agreement term.

The following tables disaggregate the Company's revenue by major source:

| | Three months ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2019 | 2018 | 2019 | 2018 |
| Subscription | $ 54,086 | $ 41,164 | $ 104,185 | $ 79,367 |
| Transactional | 12,190 | 8,902 | 23,713 | 17,519 |
| Services and Other | 11,370 | 8,508 | 21,044 | 16,496 |
| Total Revenues | $ 77,646 | $ 58,574 | $ 148,942 | $ 113,382 |

*Subscription Revenues*

The Company's software solutions are available for use as hosted application arrangements under subscription fee agreements without licensing perpetual rights to the software. Subscription fees from these applications, including contractual periodic price increases, are recognized over time on a ratable basis over the customer agreement term beginning on the date the Company's solution is made available to the customer. Amounts that have been invoiced are recorded in accounts receivable and deferred revenues or revenues, depending on whether the revenue recognition criteria have been met. Periodic price increases are estimated at contract inception and result in contract assets as revenue recognition may exceed the amount billed early in the contract. Additional fees for monthly usage above the levels included in the standard subscription fee are recognized as revenue in the month when the usage amounts are determined and reported.

A small portion of the Company's customers host and manage the Company's solutions on-premises or in third-party data centers under term license and maintenance agreements. Term licenses sold with maintenance entitle the customer to technical support, upgrades and updates to the software on a when-and-if-available basis. The Company recognizes software license revenue once the customer obtains control of the license, which generally occurs at the start of each license term. The Company recognizes the remaining arrangement consideration for maintenance revenue over time on a ratable basis over the term of the software license. If the expected length of time between when the Company transfers the software license to the customer and when the customer pays for it results in a significant financing component, the Company adjusts the promised amount of consideration for the effects of the time value of money, which reflects the price the customer would have paid when the license was transferred. Revenues from term licenses and maintenance agreements and the related financing component were not significant in the periods presented.

*Transactional Revenues*

The Company earns the majority of its transactional revenues based on the number of bill-pay transactions that End Users initiate on its digital banking platform. The Company also generates a smaller portion of its transactional revenues from interchange fees generated when End Users utilize debit cards integrated with its Q2 CorePro API or Q2 Biller Direct products. The Company recognizes revenue for bill-pay transaction services and interchange fees in the month incurred based on actual transactions.

*Services and Other Revenues*

Implementation services are required for each new digital banking and lending and leasing platform and Centrix standalone contract, and there is a significant level of integration and configuration for each customer. The Company's revenue for upfront implementation services are billed upfront and recognized over time on a ratable basis over the customer agreement term for its hosted application agreements. Upfront implementation services for on-premises agreements are recognized at commencement date. Under certain circumstances, the Company partners with third-party professional system integrators to support the installation and configuration process for its digital lending and leasing solutions, and therefore, the Company has determined that these services qualify as a separate performance obligation in certain markets and geographies, and the upfront implementation services for these agreements are recognized upon completion of the services.

Professional services revenues, which primarily consist of training, advisory services, core conversion services, web design, and other general professional services, are generally billed and recognized when delivered.

Certain out-of-pocket expenses billed to customers are recorded as revenues rather than an offset to the related expense. Revenues recorded from out-of-pocket expense reimbursements totaled approximately $0.4 million for each of the three months ended June 30, 2019 and 2018 and $0.9 million and $0.8 million for the six months ended June 30, 2019 and 2018 , respectively. The out-of-pocket expenses are reported in cost of revenues.

*Significant Judgments*

Performance Obligations and Standalone Selling Price

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer and is the unit of accounting. Determining whether products and services are considered distinct performance obligations that should be accounted for separately versus together may require significant judgment. The Company has contracts with customers that often include multiple performance obligations, usually including multiple subscription and implementation services. For these contracts, the Company accounts for individual performance obligations that are distinct separately by allocating the contract's total transaction price to each performance obligation in an amount based on the relative standalone selling price, or SSP, of each distinct good or service in the contract. In determining whether implementation services are distinct from subscription services, the Company considered various factors including the significant level of integration, interdependency, and interrelation between the implementation and subscription service, as well as the inability of the customer's personnel or other service providers to perform significant portions of the services. The Company has concluded that the implementation services included in contracts with multiple performance obligations in the North American banking market are not distinct and, as a result, the Company defers any arrangement fees for implementation services and recognizes such amounts over time on a ratable basis as one performance obligation with the underlying subscription revenue for the initial agreement term of the hosted application agreements. The Company has concluded that outside the North American banking market, the implementation services for its lending and leasing platform included in contracts with multiple performance obligations are distinct and, as a result, the Company recognizes implementation fees on such arrangements upon completion of the services.

The majority of the Company's revenue recognized at a particular point in time is for professional services and usage revenue. These services are performed within a relatively short period of time and are recognized at the point in time in which the customer obtains control of the asset, which is generally upon completion of the service.

Judgment is required to determine the SSP for each distinct performance obligation. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied. The primary method used to estimate SSP is the adjusted market assessment approach, which considers its overall pricing

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objectives, market conditions and other factors, including the value of the Company's contracts, its discounting practices, the size and volume of its transactions, customer characteristics, price lists, go-to-market strategy, historical standalone sales and agreement prices, and the number and types of users within its contracts.

Variable Consideration

The Company recognizes usage revenue related to End Users accessing its products in excess of contracted amounts, bill-pay transactions that End Users initiate on its digital banking platform, and interchange fees that End Users generate using the Company's solutions. Judgment is required to determine the accounting for these types of revenue. The Company considers various factors including the degree to which usage is interdependent or interrelated to past services, costs to the Company per user over the contract, and contractual price per user changes and their relationship to market terms, forecasted data, and the Company's cost to fulfill the obligation. The Company has concluded that its usage revenue relates specifically to the transfer of the service to the customer and is consistent with the allocation objective of Topic 606 when considering all of the performance obligations and payment terms in the contract. Therefore, the Company recognizes usage revenue on a monthly or quarterly basis in accordance with the agreement, as determined and reported. This allocation reflects the amount the Company expects to receive for the services for the given period.

The Company sometimes provides credits or incentives to its customers. Known and estimable credits and incentives represent a form of variable consideration, which are estimated at contract inception and reduce the revenues recognized for a particular contract. These estimates are updated at the end of each reporting period as additional information becomes available. The Company believes that there will not be significant changes to its estimates of variable consideration as of June 30, 2019 .

Other Considerations

The Company evaluates whether it is the principal (i.e., report revenues on a gross basis) or agent (i.e., report revenues on a net basis) with respect to the vendor reseller agreements pursuant to which the Company resells certain third-party solutions along with the Company's solutions. Generally, the Company reports revenues from these types of contracts on a gross basis, meaning the amounts billed to customers are recorded as revenues, and expenses incurred are recorded as cost of revenues. Where the Company is the principal, it first obtains control of the inputs to the specific good or service and directs their use to create the combined output. The Company's control is evidenced by its involvement in the integration of the good or service on its platform before it is transferred to its customers and is further supported by the Company being primarily responsible to its customers and having a level of discretion in establishing pricing. Revenues provided from agreements in which the Company is an agent are insignificant.

***Cost of Revenues***

Cost of revenues is comprised primarily of salaries and other personnel-related costs, including employee benefits, bonuses and stock-based compensation, for employees providing services to the Company's customers. This includes the costs of the Company's implementation, customer support, data center and customer training personnel, as well as costs related to research and development personnel who perform implementation and customer support services. Cost of revenues also includes the direct costs of bill-pay and other third-party intellectual property included in the Company's solutions, the amortization of deferred solution and services costs, co-location facility costs and depreciation of the Company's data center assets, cloud-based hosting services, an allocation of general overhead costs and referral fees. Direct costs of third-party intellectual property include amounts paid for third-party licenses and related maintenance that are incorporated into the Company's software and the amortization of acquired technology from the Company's recent acquisitions, with the costs amortized to cost of revenues over the useful lives of the purchased assets.

The Company capitalizes certain personnel costs directly related to the implementation of its solutions to the extent those costs are considered to be recoverable from future revenues. The Company amortizes the costs for a particular implementation once revenue recognition commences, and the Company amortizes those implementation costs over the expected period of customer benefit, which has been determined to be the estimated life of the technology. Other costs not directly recoverable from future revenues are expensed in the period incurred.

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***Software Development Costs***

Software development costs include salaries and other personnel-related costs, including employee benefits and bonuses attributed to programmers, software engineers and quality control teams working on the Company's software solutions. The costs related to software development that are incurred between reaching technological feasibility of a solution and the point at which the solution is ready for general release are capitalized and are included in intangible assets, net on the condensed consolidated balance sheet. Capitalized software development costs are computed on an individual product basis, and products available for market are amortized to cost of revenues over the products' estimated economic lives. The Company capitalized no software development costs for each of the three and six months ended June 30, 2019 and 2018 . The Company recognized $0.2 million of amortization of capitalized software development costs for each of the three months ended June 30, 2019 and 2018 , and $0.4 million for each of the six months ended June 30, 2019 and 2018 .

***Research and Development Costs***

Research and development costs include salaries and other personnel-related costs, including employee benefits, bonuses and stock-based compensation, third-party contractor expenses, software development tools, an allocation of facilities and depreciation expenses and other related expenses incurred in developing new solutions and upgrading and enhancing existing solutions. Research and development costs are expensed as incurred.

***Advertising***

All advertising costs of the Company are expensed the first time the advertising takes place. Advertising costs were $0.4 million for each of the three months ended June 30, 2019 and 2018 and were $0.7 million and $0.8 million for the six months ended June 30, 2019 and 2018 , respectively.

***Sales Tax***

The Company presents sales taxes and other taxes collected from customers and remitted to governmental authorities on a net basis and, as such, excludes them from revenues.

***Comprehensive Loss***

Comprehensive loss includes net loss as well as other changes in stockholders' equity that result from transactions and economic events other than those with stockholders. Other comprehensive loss consists of unrealized gains and losses on available-for-sale investments and foreign currency translation adjustments.

***Stock-Based Compensation***

Stock options, restricted stock units, and market stock units awarded to employees, directors, executives and consultants are measured at fair value at each grant date. The Company does not use a forfeiture rate to recognize compensation expense. Generally, options vest 25% on the one-year anniversary of the grant date with the balance vesting monthly over the following 36 months, and restricted stock unit awards vest in four annual installments of 25% each. Market stock units are performance-based awards that cliff vest based on the Company's stockholder return relative to the total stockholder return of the Russell 2000 Index, or Index, over a three-year period on the anniversary of the date of grant. Up to one-third of the target shares of the Company's common stock subject to each market stock unit award are eligible to be earned after the first and second years of the performance period and up to 200% of the full target number of shares subject to each market stock unit award are eligible to be earned after the completion of the three-year performance period (less any shares earned for years one and two) based on the average price of the Company's common stock relative to the Index during the performance period.

The Company values stock options using the Black-Scholes option-pricing model, which requires the input of subjective assumptions, including the risk-free interest rate, expected life, expected stock price volatility and dividend yield. The risk-free interest rate assumption is based upon observed interest rates for constant maturity U.S. Treasury securities consistent with the expected term of the Company's employee stock options. The expected life represents the period of time the stock options are expected to be outstanding and is based on the simplified method. Under the simplified method, the expected life of an option is presumed to be the mid-point between the vesting date and end of the contractual term. The Company used the simplified method due to the lack of sufficient historical exercise data to provide a reasonable basis upon which to otherwise estimate the expected life of the stock options. Due to the Company's limited history as a public company, expected volatility is based on historical volatilities for publicly traded stock of comparable companies over the estimated expected life of the stock options. The Company assumed no dividend yield because it does not expect to pay dividends in the near future, which is consistent with the Company's history of not paying dividends. The Company recognizes compensation expense ratably over the requisite service period of the stock option award.

The Company values restricted stock units at the closing market price on the date of grant, and recognizes compensation expense ratably over the requisite service period of the restricted stock unit award.

The Company estimates the fair value of market stock units on the date of grant using a Monte Carlo simulation model. The determination of fair value of the market stock units is affected by the Company's stock price and a number of assumptions including the expected volatility and the risk-free interest rate. The Company's expected volatility at the date of grant was based on the historical volatilities of its stock and peer firms' stocks and the Index over the performance period. The Company assumed no dividend yield and recognizes compensation expense ratably over the performance period of the market stock unit award. The Company recognizes compensation expense using the graded attribution method on a straight-line basis over the performance period for each market stock unit award.

***Convertible Senior Notes***

In February 2018, the Company issued $230.0 million principal amount of convertible senior notes due in February 2023, or the 2023 Notes. In accounting for the February 2018 convertible note offering, the Company separated each of the 2023 Notes due into liability and equity components. The carrying amount of the liability component was calculated by measuring the fair value, as of the date of issuance, of a similar debt without the conversion feature. The carrying amount of the equity component representing the conversion feature was determined by deducting the fair value of the liability components from the total initial proceeds. The difference between the par amount of the 2023 Notes and the carrying amount of the liability component represents debt discounts that are amortized to interest expense over the respective terms of the 2023 Notes using the effective interest rate method. The equity components are not remeasured as long as they continue to meet the conditions for equity classification. In accounting for the issuance costs related to the 2023 Notes, the Company allocated the total amount of issuance costs incurred to liability and equity components based on their relative values. Issuance costs attributable to the liability components are amortized to interest expense over the respective terms of the 2023 Notes using the effective interest rate method. The issuance costs attributable to the equity components were netted against the respective equity components in additional paid-in capital.

In June 2019, the Company issued $316.3 million principal amount of convertible senior notes due in June 2026, or the 2026 Notes. In accounting for the issuance of the 2026 Notes, the Company separated each of the 2026 Notes into liability and equity components. The carrying amount of the liability component was calculated by measuring the fair value, as of the date of issuance, of a similar debt without the conversion feature. The carrying amount of the equity component representing the conversion feature was determined by deducting the fair value of the liability components from the total initial proceeds. The difference between the par amount of the 2026 Notes and the carrying amount of the liability component represents debt discounts that are amortized to interest expense over the respective terms of the 2026 Notes using the effective interest rate method. The equity components are not remeasured as long as they continue to meet the conditions for equity classification. In accounting for the issuance costs related to the 2026 Notes, the Company allocated the total amount of issuance costs incurred to liability and equity components based on their relative values. Issuance costs attributable to the liability components are amortized to interest expense over the respective terms of the 2026 Notes using the effective interest rate method. The issuance costs attributable to the equity components were netted against the respective equity components in additional paid-in capital.

***Leases***

The Company determines if a contract contains a lease for accounting purposes at the inception of the arrangement. The Company elected to apply the practical expedient which allows the Company to account for lease and non-lease components of a contract as a single leasing arrangement. In addition, the Company elected the practical expedients related to lease classification and the short-term lease exemption, whereby leases with initial terms of one year or less are not capitalized and instead expensed generally on a straight-line basis over the lease term. The Company is primarily a lessee with a lease portfolio comprised mainly of real estate and equipment leases. As of June 30, 2019 , the Company had no finance leases.

Operating lease assets are included on the Company's condensed consolidated balance sheets in non-current assets as a right-of-use asset, or ROU, and represent the Company's right to use an underlying asset for the lease term. Operating lease liabilities are included on the Company's condensed consolidated balance sheets in current liabilities for the portion that is due within 12 months and in non-current liabilities for the portion that is due beyond 12 months of the financial statement date and represent the Company's obligation to make lease payments.

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ROU assets and lease liabilities are recognized at the commencement date of the lease based on the present value of lease payments over the lease term using an appropriate discount rate. If an implicit rate is not readily determined by the Company's leases, the Company utilizes the incremental borrowing rate based on the available information at the commencement date to determine the lease payments. The depreciable lives of the underlying leased assets are generally limited to the expected lease term inclusive of any optional lease renewals where the Company concludes at the inception of the lease that the Company is reasonably certain of exercising those options. The ROU asset calculation may also include any initial direct costs paid and is reduced by any lease incentives provided by the lessor. Lease expense for operating lease payments are recognized on a straight-line basis over the lease term.

***Contingent Consideration***

On October 15, 2018, the Company's wholly-owned subsidiary, Q2 Software, Inc. acquired all of the outstanding capital stock of Cloud Lending, Inc., a Delaware corporation, or Cloud Lending. Certain former stockholders of Cloud Lending have the right to receive an earnout payment of up to an additional $59.5 million in the aggregate based upon satisfaction of certain financial milestones. As of June 30, 2019 , the estimated fair value of the contingent consideration related to the potential earnout payment utilizing the Monte Carlo simulation method under the option pricing model was $20.3 million , and this amount is recorded in other accrued compensation in the condensed consolidated balance sheets. The fair value of this contingent consideration is estimated on a quarterly basis through a collaborative effort by the Company's sales and finance departments. Changes in the fair value of the contingent consideration subsequent to the purchase price finalization are recorded as acquisition related costs in the condensed consolidated statements of comprehensive loss.

***Income Taxes***

Deferred income taxes are provided for the tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes and operating loss carryforwards and credits using enacted tax rates expected to be in effect in the years in which the differences are expected to reverse. The Company assesses the likelihood that deferred tax assets will be realized and recognizes a valuation allowance if it is more likely than not that some portion of the deferred tax assets will not be realized. This assessment requires judgment as to the likelihood and amounts of future taxable income by tax jurisdiction. To date, the Company has provided a valuation allowance against most of its deferred tax assets as it believes the objective and verifiable evidence of its historical pretax net losses outweighs any positive evidence of its forecasted future results. Although the Company believes that its tax estimates are reasonable, the ultimate tax determination involves significant judgment that is subject to audit by tax authorities in the ordinary course of business. The Company will continue to monitor the positive and negative evidence, and it will adjust the valuation allowance as sufficient objective positive evidence becomes available.

The Company evaluates its uncertain tax positions based on a determination of whether and how much of a tax benefit taken by the Company in its tax filings or positions is more likely than not to be realized. Potential interest and penalties associated with any uncertain tax positions are recorded as a component of income tax expense. As of June 30, 2019 , the Company has unrecognized tax benefits of $0.3 million related to prior year uncertain tax positions, and an insignificant amount of accrued interest. The Company does not expect any of the balance to be recognized during the next twelve months.

***Basic and Diluted Net Loss per Common Share***

The following table sets forth the computations of net loss per share for the periods listed:

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2019 | 2018 | 2019 | 2018 |
| Numerator: | | | | |
| Net loss | $ (17,331) | $ (8,627) | $ (36,642) | $ (14,675) |
| Denominator: | | | | |
| Weighted-average common shares outstanding, basic and diluted | 44,978 | 42,605 | 44,382 | 42,389 |
| Net loss per common share, basic and diluted | $ (0.39) | $ (0.20) | $ (0.83) | $ (0.35) |

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Due to net losses for the three and six months ended June 30, 2019 and 2018 , basic and diluted loss per share were the same, as the effect of all potentially dilutive securities would have been anti-dilutive. The following table sets forth the anti-dilutive common share equivalents for the periods listed:

| | As of June 30, | |
|---|---|---|
| | 2019 | 2018 |
| Stock options, restricted stock units, and market stock units | 4,238 | 5,032 |
| Shares related to the 2023 Notes | 828 | — |
| | 5,066 | 5,032 |

Because the Company has the intention and ability to settle the principal amount of each of its 2023 Notes and each of its 2026 Notes in cash, the treasury stock method is expected to be used for calculating any potential dilutive effect of the conversion spread on diluted net income per share, if applicable. The conversion spread will have a dilutive impact on net income per share of common stock when the average market price of common stock for a given period exceeds the conversion price of $57.38 per share for the 2023 Notes. The conversion spread will have a dilutive impact on net income per share of common stock when the average market price of common stock for a given period exceeds the conversion price of $88.61 per share for the 2026 Notes. The warrants issued by the Company in connection with its February 2018 convertible note offering, or Warrants, will have a dilutive effect when the average market price of common stock for a given period exceeds the Warrant's strike price of $78.75 per share.

***Recent Accounting Pronouncements***

In February 2016, the Financial Accounting Standards Board, or FASB, issued ASU No. 2016-02, "Leases (Topic 842)," to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. In July 2018, the FASB issued ASU 2018-10, "Codification Improvements to Topic 842 (Leases)," which provides narrow amendments to clarify how to apply certain aspects of the new lease standard. In July 2018, the FASB also issued ASU 2018-11, "Targeted Improvements," which provides the option to adopt ASU No. 2016-02 retrospectively for each prior period presented or as of the adoption date with a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. In January 2019, the FASB issued ASU No. 2019-01, "Leases (Topic 842): Codification Improvements" to clarify the required disclosures of ASU No. 2016-02 and explicitly exempt entities from disclosing the effect of the change for the interim period. The Company adopted the standard effective January 1, 2019 and elected the package of practical expedients permitted under the transition guidance within Topic 842, which among other things, allows the Company to carry forward the historical lease classification and the practical expedient to not separate lease and non-lease components of an agreement. Adoption of the new standard resulted in the recording of lease assets and lease liabilities of approximately $27.0 million and $36.2 million , respectively, as of January 1, 2019. The difference between the lease assets and lease liabilities is the reclassification of deferred rent on our balance sheet at the date of adoption. The standard had no impact on the Company's condensed consolidated statement of comprehensive loss or the condensed consolidated statement of cash flows.

In June 2016, the FASB issued ASU 2016-13, "Financial Instruments - Credit Losses (Topic 326)" which modifies the measurement of expected credit losses of certain financial instruments. Credit losses on trade and other receivables, held-to-maturity debt securities, and other instruments will reflect the Company's current estimate of the expected credit losses and will generally result in the earlier recognition of allowance for losses. The new guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019, with early adoption permitted. The Company is currently evaluating the impact of and approach to adopting this new accounting guidance and does not expect the adoption of this standard to have a material impact on its condensed consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04, "Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment" which simplifies the accounting for goodwill impairment by removing Step 2 of the goodwill impairment test and requires an entity to write down the carrying value of goodwill up to the amount by which the carrying amount of a reporting unit exceeds its fair value. The standard is effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years and early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The Company does not expect the adoption of this standard to have a material impact on its condensed consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-15, "Intangibles-Goodwill and Other-Internal-Use Software (Subtopic 350-40)," which aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal-use software license). ASU 2018-15 will be effective for the Company beginning in its first quarter of 2020, with early adoption permitted. The ASU may be applied retrospectively or prospectively to all implementation costs incurred after the date of adoption. The Company has elected to early adopt the ASU as of January 1, 2019 on a prospective basis. No implementation costs related to hosting arrangements were capitalized during the three and six months ended June 30, 2019 .

**3. Business Combinations**

***Cloud Lending***

On October 15, 2018, the Company's wholly-owned subsidiary, Q2 Software, Inc. acquired all of the outstanding capital stock of Cloud Lending Inc., or Cloud Lending, a privately-owned provider of end-to-end digital lending and leasing platform solutions. The purchase price paid was in excess of the fair value of the net assets acquired and, as a result, the Company recorded goodwill.

Cloud Lending was acquired for a purchase price of approximately $125.1 million of which the Company paid $107.3 million in cash. At closing, the Company deposited into an escrow account $10.5 million of the initial consideration, or CL Escrow Amount, to compensate for any breach of a representation or warranty or any violation or default of any obligation by the sellers subsequent to the acquisition during the period of 18 months following the acquisition date. To the extent not utilized, the CL Escrow Amount shall be paid to the former stockholders of Cloud Lending at the end of the 18 month period unless there are any unresolved claims remaining at that time.

Certain former stockholders of Cloud Lending have the right to receive an earnout payment of up to an additional $59.5 million in the aggregate based upon the achievement of certain financial milestones by applicable measurement dates of June 30, 2019 and March 31, 2020. As of June 30, 2019 , financial milestones triggering payout on the first measurement date ended June 30, 2019 had not been achieved. The estimated fair value of the contingent consideration related to the potential future earnout payment was $20.3 million , which is recorded in accrued compensation on the condensed consolidated balance sheets. Changes in the fair value of the contingent consideration subsequent to the purchase price finalization are recorded as acquisition related costs in the condensed consolidated statement of comprehensive loss.

The Company accrues for payouts contingent upon continued and future employment of acquired employees and contractors of Cloud Lending, and the unpaid amounts due to the continuing employees are recorded in accrued compensation in the condensed consolidated balance sheets. The Company recognized $0.8 million under these agreements in compensation expense which is included in acquisition related costs and cost of revenues in the condensed consolidated statement of comprehensive loss for the three months ended June 30, 2019 and $1.0 million for the six months ended June 30, 2019 .

***Gro Solutions***

On November 30, 2018, the Company's wholly-owned subsidiary, Q2 Software, Inc. acquired all of the outstanding shares of Gro Solutions, or Gro, a privately-owned provider of digital account opening and sales and marketing solutions. The purchase price paid was in excess of the fair value of the net assets acquired, and as a result, the Company recorded goodwill.

Gro was acquired for approximately $25.5 million in cash from existing balances. At closing, the Company deposited into an escrow account $0.4 million of the initial consideration, or Gro Escrow Amount, to compensate for any breach of a representation or warranty or any violation or default of any obligation by the sellers subsequent to the acquisition during an escrow period of 12 or 18 months following the acquisition date depending upon the nature of the breach, violation or default. To the extent not utilized, the Gro Escrow Amount shall be paid to the former stockholders of Gro at the end of the 18 month period unless there are any unresolved claims remaining at that time.

The Company accrues for payouts contingent upon continued and future employment of acquired employees and contractors of Gro, and the unpaid amounts due to the continuing employees are recorded in accrued compensation in the condensed consolidated balance sheets. The Company recognized $0.1 million under these agreements in compensation expense which is included in acquisition related costs in the condensed consolidated statement of comprehensive loss for the three months ended June 30, 2019 and $0.3 million for the six months ended June 30, 2019 .

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**4. Fair Value Measurements**

The carrying values of the Company's financial instruments, principally cash equivalents, investments, accounts receivable, restricted cash and accounts payable, approximated their fair values due to the short period of time to maturity or repayment.

Fair value is defined as the exchange price that would be received for an asset or an exit price paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The current accounting guidance for fair value measurements defines a three-level valuation hierarchy for disclosures as follows:

- Level I—Unadjusted quoted prices in active markets for identical assets or liabilities;
- Level II—Inputs other than quoted prices included within Level I that are observable, unadjusted quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data; and
- Level III—Unobservable inputs that are supported by little or no market activity, which requires the Company to develop its own assumptions.

The categorization of a financial instrument within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

The following table details the fair value hierarchy of the Company's financial assets measured at fair value on a recurring basis as of June 30, 2019 :

| | | Fair Value Measurements Using: | | |
|---|---|---|---|---|
| | Fair Value | Quoted Prices in Active Markets for Identical Assets (Level I) | Significant Other Observable Inputs (Level II) | Significant Unobservable Inputs (Level III) |
| **Assets** | | | | |
| **Cash Equivalents:** | | | | |
| Money market funds | $ 85,353 | $ 85,353 | $ — | $ — |

| **Investments:** | Fair Value | Quoted Prices in Active Markets for Identical Assets (Level I) | Significant Other Observable Inputs (Level II) | Significant Unobservable Inputs (Level III) |
|---|---|---|---|---|
| U.S. government agency bonds | $ 1,508 | $ — | $ 1,508 | $ — |
| Corporate bonds and commercial paper | 32,332 | — | 32,332 | — |
| Certificates of deposit | 970 | — | 970 | — |
| | $ 34,810 | $ — | $ 34,810 | $ — |

| **Liabilities** | | | | |
|---|---|---|---|---|
| **Accrued Compensation:** | Fair Value | Quoted Prices in Active Markets for Identical Assets (Level I) | Significant Other Observable Inputs (Level II) | Significant Unobservable Inputs (Level III) |
| Contingent consideration | $ 20,345 | $ — | $ — | $ 20,345 |

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The following table details the fair value hierarchy of the Company's financial assets measured at fair value on a recurring basis as of December 31, 2018 :

| | | Fair Value Measurements Using: | | |
|---|---|---|---|---|
| | Fair Value | Quoted Prices in Active Markets for Identical Assets (Level I) | Significant Other Observable Inputs (Level II) | Significant Unobservable Inputs (Level III) |
| **Assets** | | | | |
| **Cash Equivalents:** | | | | |
| Money market funds | $ 54,559 | $ 54,559 | $ — | $ — |

| **Investments:** | Fair Value | Quoted Prices in Active Markets for Identical Assets (Level I) | Significant Other Observable Inputs (Level II) | Significant Unobservable Inputs (Level III) |
|---|---|---|---|---|
| U.S. government agency bonds | $ 22,293 | $ — | $ 22,293 | $ — |
| Corporate bonds and commercial paper | 44,734 | — | 44,734 | — |
| Certificates of deposit | 1,952 | — | 1,952 | — |
| | $ 68,979 | $ — | $ 68,979 | $ — |

| **Liabilities** | | | | |
|---|---|---|---|---|
| **Other Long-term Liabilities:** | Fair Value | Quoted Prices in Active Markets for Identical Assets (Level I) | Significant Other Observable Inputs (Level II) | Significant Unobservable Inputs (Level III) |
| Contingent consideration | $ 16,862 | $ — | $ — | $ 16,862 |

The Company determines the fair value of its investment holdings based on pricing from its pricing vendors. The valuation techniques used to measure the fair value of financial instruments having Level II inputs were derived from non-binding consensus prices that are corroborated by observable market data or quoted market prices for similar instruments. Such market prices may be quoted prices in active markets for identical assets (Level I inputs) or pricing determined using inputs other than quoted prices that are observable either directly or indirectly (Level II inputs).

The Company added contingent consideration on October 15, 2018 with the acquisition of Cloud Lending. The contingent consideration liabilities were recorded at fair value on the acquisition date and are adjusted to fair value at each reporting period. The Company's contingent consideration is valued using a Monte Carlo simulation model. The assumptions used in preparing the Monte Carlo simulation model include estimates for revenue growth rates, revenue volatility, revenue recognition periods, risk-free rates and discount rates. The increases or decreases in the fair value of contingent consideration payable can result from changes in anticipated revenue levels and assumed discount periods and rates. The fair value of the contingent consideration increased by $1.1 million during the three months ended June 30, 2019 . This increase was mainly attributable to the change in the assumed discount period and rate as a result of the passage of time.

**5. Cash, Cash Equivalents and Investments**

The Company's cash, cash equivalents and investments as of June 30, 2019 and December 31, 2018 consisted primarily of cash, U.S. government agency bonds, corporate bonds, commercial paper, certificates of deposit and money market funds.

The Company classifies investments as available-for-sale at the time of purchase and reevaluates such classification as of each balance sheet date. All investments are recorded at estimated fair value. Unrealized gains and losses on available-for-sale

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investments are included in accumulated other comprehensive loss, a component of stockholders' equity. The Company evaluates its investments to assess whether those with unrealized loss positions are other than temporarily impaired. The Company considers impairments to be other than temporary if they are related to deterioration in credit risk or if it is likely the Company will sell the investments before the recovery of their cost basis. Realized gains and losses and declines in value judged to be other than temporary are determined based on the specific identification method and are reported in other income (expense), net, in the condensed consolidated statements of comprehensive loss. Interest, amortization of premiums and accretion of discount on all investments classified as available-for-sale are also included as a component of other income (expense), net, in the condensed consolidated statements of comprehensive loss.

As of June 30, 2019 and December 31, 2018 , the Company's cash was $497.5 million and $53.8 million , respectively.

A summary of the Company's cash equivalents and investments as of June 30, 2019 is as follows:

| **Cash Equivalents:** | **Amortized Cost** | **Gross Unrealized Gains** | **Gross Unrealized Losses** | **Fair Value** |
|---|---|---|---|---|
| Money market funds | $ 85,353 | $ — | $ — | $ 85,353 |

| **Investments:** | **Amortized Cost** | **Gross Unrealized Gains** | **Gross Unrealized Losses** | **Fair Value** |
|---|---|---|---|---|
| U.S. government agency bonds | $ 1,510 | $ — | $ (2) | $ 1,508 |
| Corporate bonds and commercial paper | 32,234 | 104 | (6) | 32,332 |
| Certificates of deposit | 970 | — | — | 970 |
| | $ 34,714 | $ 104 | $ (8) | $ 34,810 |

A summary of the Company's cash equivalents and investments as of December 31, 2018 is as follows:

| **Cash Equivalents:** | **Amortized Cost** | **Gross Unrealized Gains** | **Gross Unrealized Losses** | **Fair Value** |
|---|---|---|---|---|
| Money market funds | $ 54,559 | $ — | $ — | $ 54,559 |

| **Investments:** | **Amortized Cost** | **Gross Unrealized Gains** | **Gross Unrealized Losses** | **Fair Value** |
|---|---|---|---|---|
| U.S. government agency bonds | $ 22,330 | $ — | $ (37) | $ 22,293 |
| Corporate bonds and commercial paper | 44,812 | — | (78) | 44,734 |
| Certificates of deposit | 1,952 | — | — | 1,952 |
| | $ 69,094 | $ — | $ (115) | $ 68,979 |

The Company may sell its investments at any time, without significant penalty, for use in current operations or for other purposes, even if they have not yet reached maturity. As a result, the Company classifies its investments, including investments with maturities beyond twelve months, as current assets in the accompanying condensed consolidated balance sheets.

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The following table summarizes the estimated fair value of the Company's investments, designated as available-for-sale and classified by the contractual maturity date of the investments as of the dates shown:

| | June 30, 2019 | December 31, 2018 |
|---|---|---|
| Due within one year or less | $ 22,077 | $ 61,514 |
| Due after one year through five years | 12,733 | 7,465 |
| | $ 34,810 | $ 68,979 |

The Company has certain available-for-sale investments in a gross unrealized loss position, all of which have been in such position for less than 12 months. The Company reviews its debt securities classified as short-term investments on a regular basis to evaluate whether or not any security has experienced an other than temporary decline in fair value. The Company considers factors such as the length of time and extent to which the market value has been less than the cost, the financial position and near-term prospects of the issuer and its intent to sell, or whether it is more likely than not the Company will be required to sell the investment before recovery of the investment's amortized-cost basis. If the Company determines that an other than temporary decline exists in one of these investments, the respective investment would be written down to fair value. For debt securities, the portion of the write-down related to credit loss would be recognized in other income, net in the condensed consolidated statements of comprehensive loss. Any portion not related to credit loss would be included in accumulated other comprehensive loss. Because the Company does not intend to sell any investments which have an unrealized loss position at this time, and it is not more likely than not that the Company will be required to sell the investment before recovery of its amortized cost basis, which may be maturity, the Company does not consider the investments with unrealized loss positions to be other than temporarily impaired as of June 30, 2019 .

The following table shows the fair values and the gross unrealized losses of these available-for-sale investments aggregated by investment category as of June 30, 2019 :

| | Adjusted Cost | Gross Unrealized Loss | Fair Value |
|---|---|---|---|
| U.S. government agency bonds | $ 1,504 | $ (2) | $ 1,502 |
| Corporate bonds and commercial paper | 2,506 | (6) | 2,500 |
| | $ 4,010 | $ (8) | $ 4,002 |

The following table shows the fair values and the gross unrealized losses of these available-for-sale investments aggregated by investment category as of December 31, 2018 :

| | Adjusted Cost | Gross Unrealized Loss | Fair Value |
|---|---|---|---|
| U.S. government agency bonds | $ 22,330 | $ (37) | $ 22,293 |
| Corporate bonds and commercial paper | 44,812 | (78) | 44,734 |
| | $ 67,142 | $ (115) | $ 67,027 |

**6. Goodwill and Intangible Assets**

The carrying amount of goodwill was $107.9 million as of June 30, 2019 and December 31, 2018 . Goodwill represents the excess purchase price over the fair value of assets acquired. During 2018, the Company completed the acquisitions of Cloud Lending and Gro, and during 2015, the Company completed the acquisitions of Centrix and Social Money. The Company has one  operating segment and one reporting unit. Goodwill is tested for impairment on an annual basis, and between annual tests if indicators of potential impairment exist, using a fair-value-based approach based on the market capitalization of the reporting unit. The annual impairment test was performed as of October 31, 2018. No  impairment of goodwill was identified during 2018, no r has any impairment of goodwill been recorded to date.

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Intangible assets at June 30, 2019 and December 31, 2018 were as follows:

| | As of June 30, 2019 | | | As of December 31, 2018 | | |
|---|---|---|---|---|---|---|
| | Gross Amount | Accumulated Amortization | Net Carrying Amount | Gross Amount | Accumulated Amortization | Net Carrying Amount |
| Customer relationships | $ 10,640 | $ (3,189) | $ 7,451 | $ 10,640 | $ (2,148) | $ 8,492 |
| Non-compete agreements | 2,064 | (872) | 1,192 | 2,064 | (668) | 1,396 |
| Trademarks | 11,935 | (2,893) | 9,042 | 11,935 | (2,350) | 9,585 |
| Acquired technology | 53,183 | (15,913) | 37,270 | 53,183 | (12,030) | 41,153 |
| Assembled workforce | 79 | (65) | 14 | 79 | (51) | 28 |
| Capitalized software development costs | 3,975 | (1,731) | 2,244 | 3,975 | (1,333) | 2,642 |
| | $ 81,876 | $ (24,663) | $ 57,213 | $ 81,876 | $ (18,580) | $ 63,296 |

The Company recorded intangible assets from the business combinations discussed in Note 3 - Business Combinations. Intangible assets are amortized on a straight-line basis over their estimated useful lives, which range from two to ten years . Amortization expense included in cost of revenues in the condensed consolidated statements of comprehensive loss was $1.9 million and $0.9 million for the three months ended June 30, 2019 and 2018 , respectively, and $3.6 million and $1.8 million for the six months ended June 30, 2019 and 2018 , respectively. Amortization expense included in operating expenses in the condensed consolidated statements of comprehensive loss was $0.9 million and $0.4 million for the three months ended June 30, 2019 and 2018 , respectively, and $2.1 million and $0.7 million for the six months ended June 30, 2019 and 2018 , respectively.

Gross capitalized software development costs were $4.0 million as of June 30, 2019 and December 31, 2018 . During the year ended 2017, all of the products related to capitalized software development costs reached general release, and the Company commenced amortization of these costs. The Company amortized $0.2 million of capitalized software development costs for each of the three months ended June 30, 2019 and 2018 , and $0.4 million for each of the six months ended June 30, 2019 , and 2018 . Capitalized software development costs are computed on an individual product basis and those products available for market are amortized to cost of revenues over the products' estimated economic lives, which are expected to be five years .

## 7. Commitments and Contingencies

***Operating Lease Commitments***

The Company leases office space under non-cancellable operating leases for its corporate headquarters in Austin, Texas in two adjacent buildings under separate lease agreements. Pursuant to the first of which the Company leases approximately 67 square feet of office space with an initial term that expires on April 30, 2021, with the option to extend the lease for an additional five -year term, and pursuant to the second of which the Company leases approximately 129 square feet of office space with an initial term that expires on April 30, 2028, with the option to extend the lease for an additional ten -year term. The Company also leases office space in south Austin, Texas; Lincoln, Nebraska; Des Moines, Iowa; Atlanta, Georgia; Asheville, North Carolina; San Mateo, California; Bangalore, India; Sydney Australia; London, United Kingdom; and Amsterdam, Netherlands. In the second quarter of 2018, the Company vacated a portion of its south Austin office and recorded an unoccupied lease charge of $0.7 million for the remaining contractual lease payments, associated asset disposal, and related fees, less estimated sublease income. The remaining associated lease liability of $0.1 million is recorded in other long-term liabilities, on the accompanying condensed consolidated balance sheet at June 30, 2019 . The Company believes its current facilities will be adequate for its needs for the current term and will evaluate its need for expansion beyond the 2021 lease expiration. Rent expense under operating leases was $1.3 million and $1.1 million for the three months ended June 30, 2019 and 2018 , respectively and $2.5 million and $2.2 million for the six months ended June 30, 2019 and 2018 , respectively.

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The components of lease costs, lease term and discount rate were as follows:

| | Operating Leases |
|---|---|
| Lease expense: | |
| Operating lease expense | $ 1,584 |
| Sublease income | (153) |
| Total lease expense | $ 1,431 |
| | |
| Other information: | |
| Cash paid for amounts included in the measurement of lease liabilities | |
| Operating cash flows from operating leases | $ 1,903 |
| Right-of-use assets obtained in exchange for new operating lease liabilities as of June 30, 2019 | $ 27,516 |
| Weighted-average remaining lease term - operating leases | 7.5 years |
| Weighted-average discount rate - operating leases | 5.5% |

Future minimum payments required under operating leases that have initial or remaining non-cancelable lease terms in excess of one year at June 30, 2019 were as follows:

| | Operating Leases |
|---|---|
| Year Ended December 31, | |
| 2019 (from July 1 to December 31) | $ 3,715 |
| 2020 | 6,786 |
| 2021 | 5,408 |
| 2022 | 4,891 |
| 2023 | 4,502 |
| Thereafter | 16,872 |
| Total lease payments | $ 42,174 |
| Less: present value discount | (8,916) |
| Present value of lease liabilities | $ 33,258 |

***Contractual Commitments***

The Company has non-cancelable contractual commitments related to the 2023 Notes and the 2026 Notes as well as the related interest, third-party products, co-location fees and other product costs. The Company is party to several purchase commitments for third-party products that contain both a contractual minimum obligation and a variable obligation based upon usage or other factors which can change on a monthly basis. The interest on the 2023 Notes is payable semi-annually on February 15 and August 15 of each year. The interest on the 2026 Notes is payable semi-annually on June 1 and December 1 of each year. The estimated amounts for usage and other factors are not included within the table below. Future minimum contractual commitments that have initial or remaining non-cancelable terms in excess of one year were as follows:

| | Contractual Commitments |
|---|---|
| Year Ended December 31, | |
| 2019 (from July 1 to December 31) | $ 8,730 |
| 2020 | 16,543 |
| 2021 | 14,775 |
| 2022 | 14,507 |
| 2023 | 241,697 |
| Thereafter | 322,180 |
| Total commitments | $ 618,432 |

***Legal Proceedings***

From time to time, the Company may become involved in legal proceedings arising in the ordinary course of its business. The Company is not presently a party to any legal proceedings that, if determined adversely to the Company, would have a material adverse effect on the Company.

**8. Convertible Senior Notes**

***0.75% Convertible Notes due 2023***

In February 2018, the Company issued $230.0 million principal amount of convertible senior notes due in February 2023. The interest rates for the 2023 Notes are fixed at 0.75% per annum with interest payable semi-annually on February 15 and August 15 of each year, commencing on August 15, 2018. The 2023 Notes mature on February 15, 2023, unless earlier converted or repurchased in accordance with their terms prior to such date. Each $1,000 of principal of the 2023 Notes will initially be convertible into 17.4292 shares of the Company's common stock, which is equivalent to an initial conversion price of approximately $57.38 per share. The initial conversion price for each of the 2023 Notes is subject to adjustment upon the occurrence of certain specified events.

The 2023 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 Notes, rank equally in right of payment with any of the Company's indebtedness that is not so subordinated, are 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 are structurally junior to all indebtedness and other liabilities (including trade payables) of the Company's current or future subsidiaries.

On or after November 15, 2022, holders may convert all or any portion of their 2023 Notes at any time prior to the close of business on the second scheduled trading day immediately preceding the maturity date, regardless of the succeeding conditions described herein. Upon conversion, the Company will pay or deliver, as the case may be, cash, shares of its common stock or a combination of cash and shares of its common stock, at its election, as described in the indenture governing the 2023 Notes.

Holders may convert their 2023 Notes at their option at any time prior to the close of business on the business day immediately preceding November 15, 2022 only under the following circumstances:

- during any calendar quarter commencing after the calendar quarter ending on June 30, 2018 (and only during such calendar quarter), if the last reported sale price of the 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;

- during the five consecutive business day period after any five consecutive trading day period in which the trading price per $1,000 principal amount of 2023 Notes for each trading day of the 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 on each such trading day; or

- upon the occurrence of specified corporate events.

If a fundamental change (as defined in the relevant indenture governing the 2023 Notes) occurs prior to the maturity date, holders of each of the 2023 Notes may require the Company to repurchase all or a portion of their notes for cash at a repurchase price equal to 100% of the principal amount of the 2023 Notes, plus any accrued and unpaid interest to, but excluding, the fundamental change repurchase date. As of June 30, 2019 , the 2023 Notes were not yet convertible.

In accordance with accounting guidance for cash conversion features, the Company valued the liability component at the estimated fair value, as of the date of issuance, of a similar debt without the conversion feature. The effective interest rate for the liability component was 5.875% . The liability component of the 2023 Notes is recorded in long-term debt, and the interest payable within the next twelve months is recorded in accrued liabilities on the condensed consolidated balance sheets as of June 30, 2019 . The Company recorded the difference between the initial proceeds of the convertible debt and the fair value of the

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conversion feature, and the difference was allocated to additional paid-in capital on the condensed consolidated balance sheet as the carrying amount of the equity component.

In accounting for the transaction costs for the February 2018 convertible note offering, the Company allocated the costs incurred to the liability and equity components in proportion to the allocation of the proceeds from issuance to the liability and equity components. Issuance costs attributable to the liability component, totaling $5.3 million for the 2023 Notes are being amortized to expense over the expected life the 2023 Notes using the effective interest method. Issuance costs attributable to the equity component related to the conversion feature, totaling $1.5 million for the 2023 Notes were netted with the equity component.

The 2023 Notes consist of the following:

| | As of June 30, 2019 |
|---|---|
| Liability component: | |
| Principal | $ 230,000 |
| Unamortized debt discount | (38,151) |
| Unamortized debt issuance costs | (3,993) |
| Net carrying amount | 187,856 |
| | |
| Equity component: | |
| Net allocation of proceeds | 31,116 |
| Net issuance costs | (1,517) |
| Net carrying amount | $ 29,599 |

The following table sets forth total interest expense recognized related to the 2023 Notes:

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2019 | 2018 | 2019 | 2018 |
| Contractual interest expense | $ 431 | $ 431 | $ 868 | $ 647 |
| Amortization of debt issuance costs | 250 | 223 | 500 | 346 |
| Amortization of debt discount | 2,342 | 1,990 | 4,640 | 3,089 |
| Total | $ 3,023 | $ 2,644 | $ 6,008 | $ 4,082 |

As of June 30, 2019 , the remaining period over which the debt discount and debt issuance costs will be amortized was 3.6 years.

***Bond Hedges and Warrants Transactions***

Concurrent with the February 2018 convertible note offering, the Company entered into separate convertible notes bond hedges, or Bond Hedges, and Warrants transactions. The Bond Hedges are generally expected to reduce potential dilution to the Company's common stock upon conversion of the 2023 Notes. The Bond Hedges are call options that give the Company the option to purchase, subject to anti-dilution adjustments substantially identical to those in the 2023 Notes, approximately 0.9 million shares of its common stock for $57.38 per share, exercisable upon conversion of the 2023 Notes and expires in February 2023. The total cost of the Bond Hedges transactions was $41.7 million .

Under the Warrants transaction, the Company issued warrants to acquire, subject to anti-dilution adjustments, up to approximately 4.0 million shares over 80 scheduled trading days beginning on May 15, 2023 at an exercise price of $78.75 per share. If the Warrants are not exercised on their exercise dates, they will expire. Pursuant to the Warrants, if the average market value per share of the Company's common stock for the reporting period, as measured under the Warrants, exceeds the exercise price of the Warrants of $78.75 , the Warrants will have a dilutive effect on the Company's earnings per share, assuming the Company is profitable. The Company received $22.4 million in cash proceeds from the sale of the Warrants.

The Bond Hedges and the Warrants are separate transactions, in each case, entered into by the Company with counterparties, and are not part of the terms of the 2023 Notes and will not affect any holders' rights under the 2023 Notes. The holders of the 2023 Notes will not have any rights with respect to the Bond Hedges or Warrants transactions. The Bond Hedges and Warrants do not meet the criteria for derivative accounting as they are indexed to the Company's stock. The amounts paid for the Bond Hedges and the proceeds received from the sale of the Warrants have been included as a net reduction to additional paid-in capital.

***0.75% Convertible Note due 2026***

In June 2019, the Company issued $316.3 million principal amount of convertible senior notes due in June 2026. The interest rates for the 2026 Notes are fixed at 0.75% per annum with interest payable semi-annually on June 1 and December 1 of each year, commencing on December 1, 2019. The 2026 Notes mature on June 1, 2026, unless earlier converted or repurchased in accordance with their terms prior to such date. Each $1,000 of principal of the 2026 Notes will initially be convertible into 11.2851 shares of the Company's common stock, which is equivalent to an initial conversion price of approximately $88.61 per share. The initial conversion price for each of the 2026 Notes is subject to adjustment upon the occurrence of certain specified events.

The 2026 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 2026 Notes, rank equally in right of payment with any of the Company's indebtedness that is not so subordinated, including the 2023 Notes, are effectively junior to any of the Company's secured indebtedness to the extent of the value of the assets securing such indebtedness and are structurally junior to all indebtedness and other liabilities (including trade payables) of the Company's current and future subsidiaries.

On or after June 5, 2023, the Company may redeem for cash all or any portion of the notes, at the Company's option if the last reported sale price of the Company's common stock has been at least 130% of the conversion price in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading-day period. If the Company calls any or all of the 2026 Notes for redemption, holders may convert all or any portion of their 2026 Notes at any time prior to the close of business on the scheduled trading day prior to the redemption date, even if the 2026 Notes are not otherwise convertible at such time. After that time, the right to convert such notes will expire, unless the Company defaults in the payment of the redemption price, in which case a holder of 2026 Notes may convert all or any portion of its 2026 Notes until the redemption price has been paid or duly provided for.

On or after March 1, 2026, holders may convert all or any portion of their 2026 Notes at any time prior to the close of business on the second scheduled trading day immediately preceding the maturity date regardless of the succeeding conditions described herein. Upon conversion, the Company will pay or deliver, as the case may be, cash, shares of its common stock or a combination of cash and shares of its common stock, at its election, as described in the indenture governing the 2026 Notes.

Holders may convert their 2026 Notes at their option at any time prior to the close of business on the business day immediately preceding March 1, 2026 only under the following circumstances:

- during any calendar quarter commencing after the calendar quarter ending on September 30, 2019 (and only during such calendar quarter), if the last reported sale price of the 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;

- during the five consecutive business day period after any five consecutive trading day period in which the trading price per $1,000 principal amount of 2026 Notes for each trading day of the 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 on each such trading day; or

- upon the occurrence of specified corporate events.

If a fundamental change (as defined in the relevant indenture governing the 2026 Notes) occurs prior to the maturity date, holders of each of the 2026 Notes may require the Company to repurchase all or a portion of their notes for cash at a repurchase price equal to 100% of the principal amount of the 2026 Notes, plus any accrued and unpaid interest to, but excluding, the fundamental change repurchase date. As of June 30, 2019 , the 2026 Notes were not yet convertible.

In accordance with accounting guidance for cash conversion features, the Company valued the liability component at the estimated fair value, as of the date of issuance, of a similar debt without the conversion feature. The effective interest rate for the liability component was 5.38% . The liability component of the 2026 Notes is recorded in long-term debt, and the interest payable within the next twelve months is recorded in accrued liabilities on the condensed consolidated balance sheets as of June 30, 2019 . The Company recorded the difference between the initial proceeds of the convertible debt and the fair value of the conversion feature, and the difference was allocated to additional paid-in capital on the condensed consolidated balance sheet as the carrying amount of the equity component.

(in thousands, except per share amounts and unless otherwise indicated)

In accounting for the transaction costs for the June 2019 convertible note offering, the Company allocated the costs incurred to the liability and equity components in proportion to the allocation of the proceeds from issuance to the liability and equity components. Issuance costs attributable to the liability component, totaling $6.4 million for the 2026 Notes are being amortized to expense over the expected life the 2026 Notes using the effective interest method. Issuance costs attributable to the equity component related to the conversion feature, totaling $2.9 million for the 2026 Notes were netted with the equity component.

The 2026 Notes consist of the following:

| | | As of June 30, 2019 |
|---|---|---|
| Liability component: | | |
| Principal | $ | 316,250 |
| Unamortized debt discount | | (83,822) |
| Unamortized debt issuance costs | | (6,394) |
| Net carrying amount | | 226,034 |
| | | |
| Equity component: | | |
| Net allocation of proceeds | | 84,412 |
| Net issuance costs | | (2,892) |
| Net carrying amount | $ | 81,520 |

The following table sets forth total interest expense recognized related to the 2026 Notes:

| | Three Months Ended June 30, | | | | Six Months Ended June 30, | | | |
|---|---|---|---|---|---|---|---|---|
| | 2019 | | 2018 | | 2019 | | 2018 | |
| Contractual interest expense | | 138 | $ | — | | 138 | $ | — |
| Amortization of debt issuance costs | | 45 | | — | | 45 | | — |
| Amortization of debt discount | | 590 | | — | | 590 | | — |
| Total | $ | 773 | $ | — | $ | 773 | $ | — |

As of June 30, 2019 , the remaining period over which the debt discount and debt issuance costs will be amortized was 6.9 years.

***Capped Calls Transactions***

In connection with the June 2019 convertible note offering, the Company entered into capped call transactions with one or more counterparties, or the Capped Calls. The Capped Calls each have an initial strike price of $88.6124 per share, subject to certain adjustments, which correspond to the initial conversion price of the 2026 Notes. The Capped Calls have initial cap prices of $139.00 per share. The Capped Calls are expected to offset the potential dilution to the common stock upon any conversion of the 2026 Notes and/or offset any cash payments the Company is required to make in excess of the principal amount of the 2026 Notes, as the case may be, in the event the market price per share of common stock is greater than the strike price of the Capped Call, with such offset subject to a cap. If, however, the market price per share of the common stock exceeds the cap price of the Capped Calls, there would be dilution and/or there would not be an offset of such potential cash payments, in each case, to the extent that the then-market price per share of the common stock exceeds the cap price. As the Capped Calls are considered indexed to the Company's stock and are considered equity classified, they are recorded in stockholders' equity on the condensed consolidated balance sheet and are not accounted for as derivatives. The cost of $40.8 million incurred in connection with the Capped Calls was recorded as a reduction to additional paid-in capital.

**Q2 HOLDINGS, INC.**
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (unaudited)**
**(in thousands, except per share amounts and unless otherwise indicated)**

## 9. Stockholders' Equity

On June 10, 2019, the Company completed a registered public offering of 2,637,986 shares of the Company's common stock at a price of $69.50 per share, before underwriting discounts and commissions. On June 12, 2019, the Company completed the sale of an additional 395,698 shares of the Company's common stock at a price of $69.50 per share, before underwriting discounts and commissions, as a result of the underwriters' exercise of their option to purchase additional shares. The Company sold 2,913,684 of such shares and an existing stockholder sold an aggregate of 120,000 of such shares. The Company did not receive any proceeds from the sale of shares by the selling stockholder in the June 2019 common stock offering.

## 10. Stock-Based Compensation

In March 2014, the Company's board of directors approved the 2014 Equity Incentive Plan, or 2014 Plan, under which stock options, stock appreciation rights, restricted stock, restricted stock units, performance shares and units and other cash-based or stock-based awards may be granted to employees, consultants and directors. Shares of common stock that are issued and available for issuance under the 2014 Plan consist of authorized, but unissued or reacquired shares of common stock or any combination thereof.

As of December 31, 2018, a total of 9,186 shares had been reserved for issuance under the 2014 Plan. The 2014 Plan contains a provision that automatically increases the shares available for issuance under the plan on January 1 of each year subsequent to the 2014 Plan's adoption through 2024, by an amount equal to the smaller of (a) 4.5% of the number of shares of common stock issued and outstanding on the immediately preceding December 31, or (b) an amount determined by the Company's board of directors. On January 1, 2019, 1,959 shares were added to the 2014 Plan in accordance with the annual automatic increase provision of the 2014 Plan. In addition, the 2014 Plan reserve is automatically increased to include any shares issuable upon expiration or termination of options granted under the Company's 2007 Stock Plan, or 2007 Plan, for options that expire or terminate without having been exercised. For the six months ended June 30, 2019 , no shares have been transferred to the 2014 Plan from the 2007 Plan, and as of June 30, 2019 a total of 11,145 shares were allocated for issuance under the 2014 Plan. As of June 30, 2019 , options to purchase a total of 2,706 shares of common stock have been granted under the 2014 Plan, 4,248 shares have been reserved under the 2014 Plan for the vesting of restricted stock units and market stock units, 706 shares have been returned to the 2014 Plan as a result of termination of options that expired or terminated without having been exercised and restricted stock awards that terminated prior to the awards vesting, and 4,897 shares of common stock remain available for future issuance under the 2014 Plan.

In July 2007, the Company adopted the 2007 Plan under which options or stock purchase rights may be granted to employees, consultants and directors. Upon the completion of the Company's initial public offering, or IPO, in March 2014, the board of directors terminated the 2007 Plan in connection with the IPO and all shares that were available for future issuance under the 2007 Plan at such time were transferred to the 2014 Plan. The 2007 Plan will continue to govern the terms and conditions of all outstanding equity awards granted under the 2007 Plan. As of June 30, 2019 , no shares remain available for future issuance under the 2007 Plan.

***Stock Options***

Stock option activity during the six months ended June 30, 2019 was as follows:

| | Number of Options | Weighted Average Exercise Price |
|---|---|---|
| Balance as of January 1, 2019 | 2,654 | $ 19.72 |
| Granted | — | — |
| Exercised | (753) | 13.42 |
| Forfeited | (46) | 40.66 |
| Balance as of June 30, 2019 | 1,855 | $ 21.77 |

**Q2 HOLDINGS, INC.**
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (unaudited)**
**(in thousands, except per share amounts and unless otherwise indicated)**

***Restricted Stock Units***

Restricted stock unit activity during the six months ended June 30, 2019 was as follows:

| | Number of Shares | Weighted Average Grant Date Fair Value |
|---|---|---|
| Nonvested as of January 1, 2019 | 1,937 | $ 43.50 |
| Granted | 417 | 68.10 |
| Vested | (297) | 35.70 |
| Forfeited | (89) | 46.54 |
| Nonvested as of June 30, 2019 | 1,968 | $ 49.74 |

***Market Stock Units***

Market stock unit activity during the six months ended June 30, 2019 was as follows:

| | Number of Shares | Weighted Average Grant Date Fair Value |
|---|---|---|
| Nonvested as of January 1, 2019 | 260 | $ 21.98 |
| Granted | 235 | 29.76 |
| Vested | (78) | 12.64 |
| Forfeited | (2) | 26.34 |
| Nonvested as of June 30, 2019 | 415 | $ 28.09 |

**11. Income Taxes**

In accordance with applicable accounting guidance, the income tax benefit for the three months ended June 30, 2019 is based on the estimated annual effective tax rate for fiscal year 2019 . The estimated effective tax rate may be subject to adjustment in subsequent quarterly periods as the estimates of pretax income for the year, along with other items that may affect the rate, change.

The Company's benefit from income taxes reflected an effective tax rate of approximately 1.3% and 1.7% for the three months ended June 30, 2019 and 2018 , respectively and 0.7% and 2.3% for the six months ended June 30, 2019 and 2018 , respectively. For the three and six months ended June 30, 2019 and 2018 , the Company's effective tax rate was lower than the U.S. federal statutory rate primarily due to changes to its valuation allowance.

The Company has significant deferred tax assets related to its net operating loss carryforwards and tax credits and has provided a valuation allowance for most of the amount of its deferred tax assets, as it is not more likely than not that any future benefit from deductible temporary differences, net operating loss carryforwards, and tax credit carryforwards will be realized. This assessment requires judgment as to the likelihood and amounts of future taxable income by tax jurisdiction.

To date, the Company has provided a valuation allowance against most of its deferred tax assets as it believes the objective and verifiable evidence of its historical pretax net losses outweighs any positive evidence of its forecasted future results. Although the Company believes that its tax estimates are reasonable, the ultimate tax determination involves significant judgment that is subject to audit by tax authorities in the ordinary course of business. The Company will continue to monitor the positive and negative evidence, and it will adjust the valuation allowance as sufficient objective positive evidence becomes available.

The Company has unrecognized tax benefits as of June 30, 2019 of $0.3 million related to prior year uncertain tax positions, and an insignificant amount of accrued interest. The Company does not expect any of the balance to be recognized during the next twelve months. The Company's tax years 2015 through 2018 generally remain open to examination by the major taxing jurisdictions to which the Company is subject. The Company's 2013 return is currently under examination by

Texas, and the Company expects no material tax adjustments related to the examination. The Company is not currently under examination by any other taxing jurisdiction.

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

### Special Note Regarding Forward-Looking Statements

*This Quarterly Report on Form 10-Q contains forward-looking statements that are based on our management's beliefs and assumptions and on information currently available to our management. The statements contained in this Quarterly Report on Form 10-Q that are not purely historical are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. You can identify these statements by words such as "anticipates," "believes," "can," "continue," "could," "estimates," "expects," "intends," "may," "plans," "seeks," "should," "will," "strategy," "future," "likely," or "would" or the negative of these terms or similar expressions. These statements are not guarantees of future performance or development and involve known and unknown risks, uncertainties and other factors that are in some cases beyond our control. All of our forward-looking statements are subject to risks and uncertainties that may cause our actual results to differ materially from our expectations. Factors that may cause such differences include, but are not limited to, the risks described under "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2018 and in this Quarterly Report on Form 10-Q and those discussed in other documents we file with the Securities and Exchange Commission, or the SEC.*

*Given these risks and uncertainties, you should not place undue reliance on these forward-looking statements. Also, forward-looking statements represent our management's beliefs and assumptions only as of the date of this Quarterly Report on Form 10-Q. You should read this Quarterly Report on Form 10-Q completely and with the understanding that our actual future results may be materially different from what we expect. We hereby qualify our forward-looking statements by these cautionary statements. Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.*

*The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our interim condensed consolidated financial statements and related notes included elsewhere in this Quarterly Report on Form 10-Q and in our other SEC filings, including the audited consolidated financial statements and the accompanying notes for the fiscal year ended December 31, 2018 , which are included in our Annual Report on Form 10-K, filed with the SEC on February 19, 2019.*

### Overview

We are a leading provider of secure, cloud-based digital solutions that transform the ways in which traditional and emerging financial services providers engage with account holders and end users, or End Users. We sell our solutions to regional and community financial institutions, or RCFIs, alternative finance and leasing companies, or Alt-FIs, and financial technology companies, or FinTechs. Our solutions enable our customers to deliver robust suites of digital banking, lending, leasing, and banking as a service, or BaaS, services that make it possible for End Users to transact and engage anytime, anywhere and on any device. Our solutions are often the most frequent point of engagement between our customers and their End Users. As such, we purpose-build our solutions to deliver compelling and consistent End User experiences across digital channels and to drive the success of our customers by optimizing their digital brands and enhancing End User acquisition, retention and engagement.

The effective delivery and management of secure and advanced digital solutions in the complex and heavily-regulated financial services industry requires significant resources, personnel and expertise. We provide digital solutions that are designed to be highly configurable, scalable and adaptable to the specific needs of our customers. We design and develop our solutions with an open platform approach intended to provide comprehensive integration among our solution offerings and our customers' internal and third-party systems. This integrated approach allows our customers to deliver unified and robust financial experiences across digital channels. Our solutions provide our customers the flexibility to configure their digital services in a manner that is consistent with each customer's specific workflows, processes and controls. Our solutions also allow our customers to personalize the digital experiences they deliver to their End Users by extending their individual services and brand requirements across digital channels. Our solutions and our data center infrastructure and resources are also designed to comply with the stringent security and technical regulations applicable to financial institutions and financial services providers and to safeguard our customers and their End Users.

We began by providing digital banking solutions to domestic RCFIs with the mission of empowering them to leverage technology to compete more effectively and to strengthen the communities and End Users they serve. To date, a substantial majority of our revenues continue to come from sales of our digital banking platform to RCFIs, and we continue to be focused on our founding mission of building stronger communities by strengthening their financial institutions. However, the continued proliferation and ubiquity of mobile and tablet devices and End Users' increasing expectations for digital services have driven increases in the number of providers, greater fragmentation of financial services markets and a broadening set of new and innovative digital services, creating challenges and opportunities in the markets served by RCFIs as well as emerging providers such as Alt-FIs and FinTechs. End Users increasingly expect to transact and engage with financial services providers anytime, anywhere and on any device, and seamlessly across devices. End Users also select digital solutions based on the quality and intuitiveness of the digital user experience.

RCFIs, Alt-FIs and FinTechs are seeking to address these challenges and opportunities and capture End User engagement by providing new, innovative digital financial services, solutions and experiences. Traditional financial services providers such as banks and credit unions are experiencing reduced End User engagement in their physical branches and increased End User engagement with their digital services and thus they are increasing their investment in digital services. Emerging providers such as Alt-FIs and FinTechs are leveraging their digital focus and expertise and capitalizing on increased End User demand for digital financial services by creating new and expanding existing digital service offerings. This combined investment by traditional and emerging financial services providers is driving further competition, segmentation and innovation.

We deliver our solutions to the substantial majority of our customers using a software-as-a-service, or SaaS, model under which our customers pay subscription fees for the use of our solutions. A small portion of our revenues are derived from customers which host our solutions in their own data centers under term license and maintenance agreements. Our digital banking platform customers have numerous End Users, and those End Users can represent one or more consumer or commercial users registered on our digital banking platform, or Registered Users on our solutions. We generally price our digital banking platform solutions based on the number of solutions purchased by our customers and the number of Registered Users utilizing our solutions. We generally earn additional revenues from our digital banking platform customers based on the number of transactions that Registered Users perform on our solutions in excess of the levels included in our standard subscription fee. As a result, our revenues from digital banking platform customers grow as our customers buy more solutions from us and increase the number of Registered Users utilizing our solutions and as those users increase their number of transactions on our solutions. The structure and terms of the arrangements for our newer lending and leasing and BaaS solutions are varied, but we generally sell these solutions on a subscription basis through our direct sales organization, and the related revenues are recognized over the terms of the customer agreements.

We have achieved significant growth since our inception. During each of the past seven years, our average number of Registered Users per installed customer on our digital banking platform, or Installed Customer, has grown, and we have been able to sell additional solutions to existing customers. Our revenues per Installed Customer and per Registered User vary period-to-period based on the length and timing of customer implementations, changes in the average number of Registered Users per customer, sales of additional solutions to existing customers, changes in the number of transactions on our solutions by Registered Users and variations among existing customers and new customers with respect to the mix of purchased solutions and related pricing. Please see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Operation Measures" for additional detail on how we define "Installed Customers" and "Registered Users."

We believe we have a significant opportunity to continue to grow our business, and we continue to invest across our organization to increase our revenues and improve our operating efficiencies. These investments will increase our costs on an absolute dollar basis, but the timing and amount of these investments will vary based on the rate at which we expect to add new customers, the implementation and support needs of our customers, our software development plans, our technology infrastructure requirements and the internal needs of our organization. Many of these investments will occur in advance of our realizing any resultant benefit which may make it difficult to determine if we are effectively allocating our resources.

If we are successful in growing our revenues by increasing the number and scope of our customer relationships, we anticipate that greater economies of scale and increased operating leverage will improve our margins over the long term. We also anticipate that increases in the number of Registered Users for existing digital banking platform customers will improve our margins. However, we do not have any control or influence over whether End Users of our digital banking platform elect to become Registered Users of our customers' digital banking services.

We sell our solutions primarily through our professional sales organization. While the RCFI market is well-defined due to the regulatory classifications of those financial institutions, the Alt-FI and FinTech markets are broader and more difficult to define due to the changing number of providers in each market. We intend to add sales representatives to identify and address the RCFI, Alt-FI and FinTech markets across the U.S. and internationally. We also expect to increase our number of sales support and marketing personnel, as well as our investment in marketing initiatives designed to increase awareness of our solutions and generate new customer opportunities.

We have continuously invested in expanding and improving our digital banking platform since its introduction in 2005, and we intend to continue investing both organically and inorganically through acquisitions to expand our portfolio. In addition, over the past three years we have acquired or developed new solutions and additional functions that serve a broader range of needs of RCFIs as well as the needs of Alt-FIs and FinTechs. In addition to our acquisitions of Centrix and Social Money in 2015, on October 15, 2018, we completed our acquisition of Cloud Lending, Inc., or Cloud Lending, a provider of an end-to-end digital lending and leasing platform and on November 30, 2018, we completed our acquisition of Gro Solutions, Inc., or Gro, a provider of digital account opening and digital sales and marketing solutions for financial institutions. Our solutions now include a broad range of services and experiences including corporate banking, regulatory and compliance, digital lending and leasing, BaaS and digital account opening and sales and marketing solutions both in the U.S. and internationally.

We believe that financial services providers are best served by a broad, integrated portfolio of digital solutions that provide rapid, flexible and comprehensive integration with internal and third-party systems allowing them to provide modern, intuitive digital financial services in a secure, regulatory-compliant manner. We also believe that the breadth and depth of our solution offerings across the RCFI, Alt-FI and FinTech markets, our open and flexible platform approach, our position as a leading provider of digital banking solutions to a large network of RCFIs, and our expertise in delivering new, innovative, secure and regulatory-compliant digital solutions uniquely position us in the market for digital financial services solutions. We intend to increase investments in technology innovation and software development as we enhance our solutions and platforms and increase or expand the number of solutions that we offer.

We believe that delivery of consistent, high-quality customer support is a significant driver of purchasing and renewal decisions of our prospects and customers. To develop and maintain a reputation for high-quality service, we seek to build deep relationships with our customers through our customer service organization, which we staff with personnel who are motivated by our common mission of using technology to help our customers succeed and who are knowledgeable with respect to the regulated and complex nature of the financial services industry. As we grow our business, we must continue to invest in and grow our services organization to support our customers' needs and maintain our reputation.

***Recent Events***

On June 10, 2019, we completed a private placement to qualified institutional buyers of $316.3 million in aggregate principal amount of 0.75% Convertible Senior Notes due June 1, 2026, or the 2026 Notes, including $41.3 million in aggregate principal amount of 2026 Notes purchased pursuant to an option to purchase additional notes. The 2026 Notes bear interest at 0.75% per annum, payable semiannually on June 1 and December 1 of each year, beginning on December 1, 2019. In connection with the June 2019 convertible note offering, we entered into capped call transactions with one or more counterparties, or the Capped Calls, with the intention of using the Capped Calls to offset the potential dilution to the common stock upon any conversion of the 2026 Notes and/or offset any cash payments we are required to make in excess of the principal amount of the 2026 Notes, as the case may be, in the event the market price per share of common stock is greater than the strike price of the Capped Calls, with such offset subject to a cap. The June 2019 convertible note offering generated net proceeds to us of approximately $266.2 million, after deducting $9.3 million in offering costs, including $40.8 million to purchase the Capped Calls.

On June 10, 2019, we completed a registered public offering of 2,637,986 shares of our common stock at a price of $69.50 per share, and on June 12, 2019, we completed the sale of an additional 395,698 shares of common stock at $69.50 per share when the underwriters exercised their option to purchase additional shares. The total shares sold in the June 2019 common stock offering and shares sold when underwriters exercised their option included 120,000 shares sold by a selling stockholder and 2,913,684 shares sold by us. The June 2019 common stock offering generated net proceeds to us of approximately $195.2 million, after deducting $8.3 million in underwriting discounts and commissions and offering costs, which have been recorded against the proceeds received from the offering, which as of June 30, 2019 included $0.5 million in unpaid offering costs. We did not receive any proceeds from the sale of shares by the selling stockholder in the June 2019 common stock offering.

**Key Operating Measures**

In addition to the United States generally accepted accounting principles, or GAAP, measures described below in "Management's Discussion and Analysis of Financial Condition and Results of Operations—Components of Operating Results," we monitor the following operating measures to evaluate growth trends, plan investments and measure the effectiveness of our sales and marketing efforts:

***Installed Customers***

We define Installed Customers as the number of customers on our digital banking platform from which we are currently recognizing revenues. The average size of our Installed Customers, measured in both Registered Users per Installed Customer and revenues per Installed Customer, has increased over time as our existing Installed Customers continue to add Registered Users and buy more solutions from us, and as we add larger RCFIs to our Installed Customer base. The net rate at which we add

Installed Customers varies based on our implementation capacity, the size and unique needs of our customers, the readiness of our customers to implement our solutions, and customer attrition, including as a result of merger and acquisition activity among financial institutions. We had 401, 382 and 385 Installed Customers on our digital banking platform as of December 31, 2018, 2017 and 2016, respectively.

***Registered Users***

We define a Registered User as an individual related to an account holder of an Installed Customer on our digital banking platform who has registered to use one or more of our solutions and has current access to use those solutions as of the last day of the reporting period presented. We price our digital banking platform solutions based on the number of Registered Users, so as the number of Registered Users of our solutions increases, our revenues grow. Our average number of Registered Users per Installed Customer grows as our existing digital banking platform customers add more Registered Users and as we add larger RCFIs to our Installed Customer base. We anticipate that the number of Registered Users will grow at a faster rate than our number of Installed Customers. The rate at which our customers add Registered Users and the incremental revenues we recognize from new Registered Users vary significantly period-to-period based on the timing of our implementations of new customers and the timing of registration of new End Users. Our Installed Customers had approximately 12.8 million, 10.4 million and 8.6 million Registered Users as of December 31, 2018, 2017 and 2016, respectively. Registered Users at June 30, 2019 were 13.6 million compared to 11.4 million at June 30, 2018 .

***Revenue Retention Rate***

We believe that our ability to retain our customers and expand their use of our products and services over time is an indicator of the stability of our revenue base and the long-term value of our customer relationships. We assess our performance in this area using a metric we refer to as our revenue retention rate. We calculate our revenue retention rate as the total revenues in a calendar year, excluding any revenues from solutions of businesses acquired during such year, from customers who were implemented on any of our solutions as of December 31 of the prior year, expressed as a percentage of the total revenues during the prior year from the same group of customers. Our revenue retention rate provides insight into the impact on current year revenues of: the number of new customers implemented on any of our solutions during the prior year; the timing of our implementation of those new customers in the prior year; growth in the number of End Users on such solutions and changes in their usage of such solutions; sales of new products and services to our existing customers during the current year, excluding any products or services resulting from businesses acquired during such year; and customer attrition. The most significant drivers of changes in our revenue retention rate each year have historically been the number of new customers in the prior year and the timing of our implementation of those new customers. The timing of our implementation of new customers in the prior year is significant because we do not start recognizing revenues from new customers until they are implemented. If implementations are weighted more heavily in the first or second half of the prior year, our revenue retention rate will be lower or higher, respectively. Our use of revenue retention rate has limitations as an analytical tool, and investors should not consider it in isolation. Other companies in our industry may calculate revenue retention rate differently, which reduces its usefulness as a comparative measure. Our revenue retention rate was 114%, 122%, and 122% for the years ended December 31, 2018, 2017 and 2016, respectively.

***Churn***

We utilize churn to monitor the satisfaction of our customers and evaluate the effectiveness of our business strategies. We define churn as the amount of any monthly recurring revenue losses due to customer cancellations and downgrades, net of upgrades and additions of new solutions, during a year, divided by our monthly recurring revenue at the beginning of the year. Cancellations refer to customers that have either stopped using our services completely or remained a customer but terminated a particular service. Downgrades are a result of customers taking less of a particular service or renewing their contract for identical services at a lower price. Our annual churn has ranged from 5.1% to 3.5% over the last seven years, and we had annual churn of 5.0%, 4.9% and 5.1% for the years ended December 31, 2018, 2017 and 2016, respectively. Our use of churn has limitations as an analytical tool, and investors should not consider it in isolation. Other companies in our industry may calculate churn differently, which reduces its usefulness as a comparative measure.

***Adjusted EBITDA***

We define adjusted EBITDA as net loss before depreciation, amortization, stock-based compensation, certain costs related to our recent acquisitions, (benefit from) provision for income taxes, total other (income) expense, net, and unoccupied lease charges. We believe that adjusted EBITDA provides useful information to investors and others in understanding and evaluating our operating results for the following reasons:

- adjusted EBITDA is widely used by investors and securities analysts to measure a company's operating performance without regard to items that can vary substantially from company to company depending upon their financing, capital structures and the method by which assets were acquired;
- our management uses adjusted EBITDA in conjunction with GAAP financial measures for planning purposes, in the preparation of our annual operating budget, as a measure of our operating performance, to assess the effectiveness of our business strategies and to communicate with our board of directors concerning our financial performance;
- adjusted EBITDA provides more consistency and comparability with our past financial performance, facilitates period-to-period comparisons of our operations and also facilitates comparisons with other companies, many of which use similar non-GAAP financial measures to supplement their GAAP results; and
- our investor and analyst presentations include adjusted EBITDA as a supplemental measure of our overall operating performance.

Adjusted EBITDA should not be considered as an alternative to net loss or any other measure of financial performance calculated and presented in accordance with GAAP. The use of adjusted EBITDA as an analytical tool has limitations such as:

- depreciation and amortization are non-cash charges, and the assets being depreciated or amortized will often have to be replaced in the future and adjusted EBITDA does not reflect cash requirements for such replacements;
- adjusted EBITDA may not reflect changes in, or cash requirements for, our working capital needs or contractual commitments;
- adjusted EBITDA does not reflect the potentially dilutive impact of stock-based compensation;
- adjusted EBITDA does not reflect interest or tax payments that could reduce cash available for use; and
- other companies, including companies in our industry, might calculate adjusted EBITDA or similarly titled measures differently, which reduces their usefulness as comparative measures.

Because of these and other limitations, you should consider adjusted EBITDA together with our GAAP financial measures including cash flow from operations and net loss. The following table presents a reconciliation of net loss to adjusted EBITDA for each of the periods indicated (in thousands):

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2019 | 2018 | 2019 | 2018 |
| Reconciliation of net loss to adjusted EBITDA: | | | | |
| Net loss | $ (17,331) | $ (8,627) | $ (36,642) | $ (14,675) |
| Depreciation and amortization | 5,975 | 3,874 | 11,796 | 7,752 |
| Stock-based compensation expense | 9,569 | 7,004 | 18,465 | 13,099 |
| Benefit from income taxes | (237) | (153) | (276) | (340) |
| Interest and other (income) expense, net | 3,173 | 2,105 | 5,351 | 3,128 |
| Acquisition related costs | 2,048 | 258 | 4,766 | 514 |
| Unoccupied lease charges | — | 658 | — | 658 |
| Adjusted EBITDA | $ 3,197 | $ 5,119 | $ 3,460 | $ 10,136 |

## Components of Operating Results

### *Revenues*

Revenue-generating activities directly relate to the sale, implementation and support of our solutions within a single operating segment. We derive the majority of our revenues from subscription fees for the use of our solutions hosted in either our data centers or with cloud-based services, transaction revenue from bill-pay solutions, as well as revenues for customer support and implementation services related to our solutions. We recognize the corresponding revenues over time on a ratable basis over the customer agreement term. A small portion of our revenues are derived from customers which host and manage our solutions on-premises or in third-party data centers under term license and maintenance agreements. We recognize the software license revenue once the customer obtains control of the license and the remaining arrangement consideration for maintenance revenue over time on a ratable basis over the term of the software license.

Subscription fees are based on the number of solutions purchased by our customers, the number of End Users using the solutions and the number of bill-pay and certain other transactions those users conduct using our solutions in excess of the levels included in our standard subscription fee. Subscription fees are billed monthly, quarterly, or annually and are recognized monthly over the term of our customer agreements. The initial term of our digital banking platform agreements averages over five years, although it varies by customer. The structure and terms of the arrangements for our newer lending and leasing and BaaS solutions are varied, but we generally sell these solutions on a subscription basis through our direct sales organization, and the related revenues are recognized over the terms of the customer agreements. We begin recognizing subscription fees when the control of the service transfers to the customer, generally when the solution is implemented and made available to the customer. The timing of our implementations varies period-to-period based on our implementation capacity, the number of solutions purchased by our customers, the size and unique needs of our customers and the readiness of our customers to implement our solutions. We recognize any related implementation services revenues ratably over the initial customer agreement term beginning on the date we commence recognizing subscription fees. Contract asset balances arise primarily when we provide services in advance of billing for those services. Amounts that have been invoiced but not paid are recorded in accounts receivable or other long-term assets, depending on the timing of expected billing, and in revenues or deferred revenues, depending on when control of the service transfers to the customer.

### *Cost of Revenues*

Cost of revenues is comprised primarily of salaries and other personnel-related costs, including employee benefits, bonuses and stock-based compensation, for employees providing services to our customers. This includes the costs of our implementation, customer support, data center and customer training personnel, as well as costs related to research and development personnel who perform implementation and customer support services. Cost of revenues also includes the direct costs of bill-pay and other third-party intellectual property included in our solutions, the amortization of deferred solution and services costs, co-location facility costs and depreciation of our data center assets, cloud-based hosting services, an allocation of general overhead costs, the amortization of acquired technology, and referral fees. We allocate general overhead expenses to all departments based on the number of employees in each department, which we consider to be a fair and representative means of allocation.

We capitalize certain personnel costs directly related to the implementation of our solutions to the extent those costs are considered to be recoverable from future revenues. We amortize the costs for a particular implementation once revenue recognition commences, and we amortize those implementation costs over the expected period of customer benefit, which has been determined to be the estimated life of the technology. Other costs not directly recoverable from future revenues are expensed in the period incurred.

We capitalize certain software development costs related to programmers, software engineers and quality control teams working on our software solutions. The costs related to software development that are incurred between reaching technological feasibility of a solution and the point at which the solution is ready for general release are capitalized and are included in intangible assets, net on the condensed consolidated balance sheet. During the year ended December 31, 2017, all of the products related to capitalized software development costs reached general release, and we have commenced amortization of these costs. Capitalized software development costs are computed on an individual product basis and products available for market are amortized to cost of revenues over the products' estimated economic lives.

We intend to continue to increase our investments in our implementation and customer support teams and technology infrastructure to serve our customers and support our growth. We expect cost of revenues to continue to grow in absolute dollars as we grow our business but to fluctuate as a percentage of revenues based principally on the level and timing of implementation and support activities and other related costs.

***Operating Expenses***

Operating expenses consist of sales and marketing, research and development and general and administrative expenses. They also include costs related to our acquisitions and the resulting amortization of acquired intangible assets from those acquisitions. We intend to continue to hire new employees and make other investments to support our anticipated growth. As a result, we expect our operating expenses to increase in absolute dollars but to decrease as a percentage of revenues over the long term as we grow our business.

*Sales and Marketing*

Sales and marketing expenses consist primarily of salaries and other personnel-related costs, including commissions, employee benefits, bonuses and stock-based compensation. Sales and marketing expenses also include expenses related to advertising, lead generation, promotional event programs, corporate communications, travel and allocated overhead.

Sales and marketing expenses as a percentage of total revenues will change in any given period based on several factors including the addition of newly-hired sales professionals, the number and timing of newly-installed customers and the amount of sales commissions expense amortized related to those customers. Commissions are generally capitalized and then amortized over the expected period of customer benefit.

Sales and marketing expenses are also impacted by the timing of significant marketing programs such as our annual client conference, which we typically hold during the second quarter. We plan to continue investing in sales and marketing by increasing our number of sales and marketing personnel and expanding our sales and marketing activities. We believe these investments will help us build brand awareness, add new customers and expand sales to our existing customers as they continue to buy more solutions from us, the number of End Users utilizing our solutions grows and those End Users increase the number of transactions they perform on our solutions.

*Research and Development*

We believe that continuing to improve and enhance our solutions is essential to maintaining our reputation for innovation and growing our customer base and revenues. Research and development expenses include salaries and personnel-related costs, including employee benefits, bonuses and stock-based compensation, third-party contractor expenses, software development costs, allocated overhead and other related expenses incurred in developing new solutions and enhancing existing solutions. Research and development expenses are expensed as incurred.

Certain research and development costs that are related to our software development, which include salaries and other personnel-related costs, including employee benefits and bonuses attributed to programmers, software engineers and quality control teams working on our software solutions, are capitalized and are included in intangible assets, net on the condensed consolidated balance sheet.

*General and Administrative*

General and administrative expenses consist primarily of salaries and other personnel-related costs, including employee benefits, bonuses and stock-based compensation, of our administrative, finance and accounting, information systems, legal and human resources employees. General and administrative expenses also include consulting and professional fees, insurance and travel. We expect to continue to incur incremental expenses associated with the growth of our business and to meet increased compliance requirements associated with operating as a public company. These expenses include costs to comply with Section 404 of the Sarbanes-Oxley Act and other regulations governing public companies, increased costs of directors' and officers' liability insurance and investor relations activities.

*Acquisition Related Costs*

Acquisition related costs include compensation expenses related to milestone provisions and retention agreements with certain former shareholders and employees of acquired businesses, which are recognized as earned, changes in fair value of the contingent consideration related to potential acquisition earnout payments and various legal and professional service expenses incurred in connection with the acquisitions, which are recognized when incurred.

*Amortization of Acquired Intangibles*

Amortization of acquired intangibles represents the amortization of intangibles recorded in connection with our business acquisitions which are amortized on a straight-line basis over the estimated useful lives of the related assets.

***Total Other Income (Expense), Net***

Total other income (expense), net, consists primarily of interest income and expense and loss on disposal of long-lived assets. We earn interest income on our cash, cash equivalents and investments. Interest expense consists primarily of the interest from the amortization of debt discount, issuance costs, and coupon interest attributable to our convertible notes issued in February 2018, or 2023 Notes, and our convertible notes issued in June 2019, or 2026 Notes, as well as fees and interest associated with the letter of credit issued to our landlord for the security deposit for our corporate headquarters.

***Benefit from Income Taxes***

As a result of our current net operating loss position, current income tax expenses and benefits consist primarily of state income taxes, deferred income tax expenses relating to the tax amortization of recently acquired goodwill, and income tax expense from foreign operations.

**Results of Operations**

***Condensed Consolidated Statements of Comprehensive Loss Data***

The following table sets forth our condensed consolidated statements of comprehensive loss data for each of the periods indicated (in thousands):

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2019 | 2018 | 2019 | 2018 |
| Revenues | $ 77,646 | $ 58,574 | $ 148,942 | $ 113,382 |
| Cost of revenues (1)(2) | 40,052 | 29,303 | 77,236 | 56,280 |
| Gross profit | 37,594 | 29,271 | 71,706 | 57,102 |
| Operating expenses: | | | | |
| Sales and marketing (2) | 15,866 | 12,108 | 31,671 | 23,074 |
| Research and development (2) | 19,118 | 11,756 | 36,775 | 22,913 |
| General and administrative (2) | 14,079 | 10,798 | 27,939 | 21,094 |
| Acquisition related costs | 1,977 | 258 | 4,695 | 514 |
| Amortization of acquired intangibles | 905 | 368 | 2,120 | 736 |
| Unoccupied lease charges (3) | — | 658 | — | 658 |
| Total operating expenses | 51,945 | 35,946 | 103,200 | 68,989 |
| Loss from operations | (14,351) | (6,675) | (31,494) | (11,887) |
| Total other income (expense), net | (3,217) | (2,105) | (5,424) | (3,128) |
| Loss before income taxes | (17,568) | (8,780) | (36,918) | (15,015) |
| Benefit from income taxes | 237 | 153 | 276 | 340 |
| Net loss | $ (17,331) | $ (8,627) | $ (36,642) | $ (14,675) |

(1) Includes amortization of acquired technology of $1.9 million and $0.9 million for the three months ended June 30, 2019 and 2018 , respectively, and $3.6 million and $1.8 million for the six months ended June 30, 2019 and 2018 , respectively.

(2) Includes stock-based compensation expenses as follows (in thousands):

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2019 | 2018 | 2019 | 2018 |
| Cost of revenues | $ 1,428 | $ 1,065 | $ 2,976 | $ 2,080 |
| Sales and marketing | 1,596 | 1,428 | 3,402 | 2,654 |
| Research and development | 2,473 | 1,566 | 4,485 | 2,922 |
| General and administrative | 4,072 | 2,945 | 7,602 | 5,443 |
| Total stock-based compensation expenses | $ 9,569 | $ 7,004 | $ 18,465 | $ 13,099 |

(3) Unoccupied lease charges include costs related to the early exit from a portion of our south Austin facility, partially offset by anticipated sublease income from that facility.

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The following table sets forth our condensed consolidated statements of comprehensive loss data as a percentage of revenues for each of the periods indicated:

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2019 | 2018 | 2019 | 2018 |
| Revenues | 100.0 % | 100.0 % | 100.0 % | 100.0 % |
| Cost of revenues (1)(2) | 51.6 | 50.0 | 51.9 | 49.6 |
| Gross profit | 48.4 | 50.0 | 48.1 | 50.4 |
| Operating expenses: | | | | |
| Sales and marketing (2) | 20.4 | 20.7 | 21.3 | 20.4 |
| Research and development (2) | 24.6 | 20.1 | 24.7 | 20.2 |
| General and administrative (2) | 18.1 | 18.4 | 18.8 | 18.6 |
| Acquisition related costs | 2.5 | 0.4 | 3.2 | 0.5 |
| Amortization of acquired intangibles | 1.2 | 0.6 | 1.4 | 0.6 |
| Unoccupied lease charges (3) | — | 1.1 | — | 0.6 |
| Total operating expenses | 66.9 | 61.4 | 69.3 | 60.8 |
| Loss from operations | (18.5) | (11.4) | (21.1) | (10.5) |
| Total other income (expense), net | (4.1) | (3.6) | (3.6) | (2.8) |
| Loss before income taxes | (22.6) | (15.0) | (24.7) | (13.3) |
| Benefit from income taxes | 0.3 | 0.3 | 0.2 | 0.3 |
| Net loss | (22.3)% | (14.7)% | (24.6)% | (12.9)% |

(1) Includes amortization of acquired technology of 2.5% and 1.6% for the three months ended June 30, 2019 and 2018 , respectively, and 2.4% and 1.6% for the six months ended June 30, 2019 and 2018 , respectively.

(2) Includes stock-based compensation expenses as follows:

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2019 | 2018 | 2019 | 2018 |
| Cost of revenues | 1.8% | 1.8% | 2.0% | 1.8% |
| Sales and marketing | 2.1 | 2.4 | 2.3 | 2.3 |
| Research and development | 3.2 | 2.7 | 3.0 | 2.6 |
| General and administrative | 5.2 | 5.0 | 5.1 | 4.8 |
| Total stock-based compensation expenses | 12.3% | 12.0% | 12.4% | 11.6% |

(3) Unoccupied lease charges include costs related to the early exit from a portion of our South Austin facility, partially offset by anticipated sublease income from that facility.

Due to rounding, totals may not equal the sum of the line items in the tables above.

**Comparison of the Three and Six Months Ended June 30, 2019 and 2018**

***Revenues***

The following table presents our revenues for each of the periods indicated (dollars in thousands):

| | Three Months Ended June 30, | | Change | | Six Months Ended June 30, | | Change | |
|---|---|---|---|---|---|---|---|---|
| | 2019 | 2018 | $ | (%) | 2019 | 2018 | $ | (%) |
| Revenues | $ 77,646 | $ 58,574 | $ 19,072 | 32.6% | $ 148,942 | $ 113,382 | $ 35,560 | 31.4% |

*Three Months Ended June 30, 2019 Compared to Three Months Ended June 30, 2018* . Revenues increased by $19.1 million , or 32.6% , from $58.6 million for the three months ended June 30, 2018 to $77.6 million for the three months ended June 30, 2019 . This increase in revenue was primarily attributable to a $11.4 million increase from the sale of additional solutions to new and existing customers and the growth in Registered Users from new and existing customers. In addition, $4.3 million of the increase was generated from the businesses acquired in the fourth quarter of 2018 and $3.3 million of the increase was generated from an increase in the number of transactions processed using our solutions.

*Six Months Ended June 30, 2019 Compared to Six Months Ended June 30, 2018* . Revenues increased by $35.6 million , or 31.4% , from $113.4 million for the six months ended June 30, 2018 to $148.9 million for the six months ended June 30, 2019 . This increase in revenue was primarily attributable to a $21.5 million increase from the sale of additional solutions to new and existing customers and the growth in Registered Users from new and existing customers. In addition, $7.8 million of the increase was generated from the businesses acquired in the fourth quarter of 2018 and $6.2 million of the increase was generated from an increase in the number of transactions processed using our solutions.

***Cost of Revenues***

The following table presents our cost of revenues for each of the periods indicated (dollars in thousands):

| | Three Months Ended June 30, | | Change | | Six Months Ended June 30, | | Change | |
|---|---|---|---|---|---|---|---|---|
| | 2019 | 2018 | $ | (%) | 2019 | 2018 | $ | (%) |
| Cost of revenues | $ 40,052 | $ 29,303 | $ 10,749 | 36.7% | $ 77,236 | $ 56,280 | $ 20,956 | 37.2% |
| Percentage of revenues | 51.6% | 50.0% | | | 51.9% | 49.6% | | |

*Three Months Ended June 30, 2019 Compared to Three Months Ended June 30, 2018* . Cost of revenues increased by $10.7 million , or 36.7% , from $29.3 million for the three months ended June 30, 2018 to $40.1 million for the three months ended June 30, 2019 . This increase was attributable to a $3.8 million increase in personnel costs due to an increase in the number of personnel who provide implementation and customer support and maintain our data centers and other technical infrastructure, which included a $2.2 million increase in personnel costs from the businesses acquired in the fourth quarter of 2018, and a $0.4 million increase in stock-based compensation expense allocated to cost of revenues for the increase in the number of stock-based awards vested during the period and the increased fair value of the awards granted due to the increase in our stock price. In addition, there was a $2.6 million increase in third-party costs related to intellectual property included in our solutions and transaction processing costs incurred as a result of the increase in Registered Users from new and existing customers, as well as implementation and support personnel expenses that are reimbursable from our customers, a $1.7 million increase in co-location facility costs and depreciation for our data center assets resulting from the increased infrastructure necessary to support our growing customer base, a $1.0 million increase in amortization of acquired customer technology resulting from the businesses acquired in the fourth quarter of 2018, a $0.7 million increase from amortization of capitalized implementation services, a $0.5 million increase in facilities, information technology, and other overhead costs which were allocated to our implementation and support departments, and a $0.3 million increase in travel related and other discretionary expenses.

*Six Months Ended June 30, 2019 Compared to Six Months Ended June 30, 2018* . Cost of revenues increased by $21.0 million , or 37.2% , from $56.3 million for the six months ended June 30, 2018 to $77.2 million for the six months ended June 30, 2019 . This increase was attributable to a $7.8 million increase in personnel costs due to an increase in the number of personnel who provide implementation and customer support and maintain our data centers and other technical infrastructure, which included a $4.8 million increase in personnel costs from the businesses acquired in the fourth quarter of 2018, and a $0.9 million increase in stock-based compensation expense allocated to cost of revenues for the increase in the number of stock-based awards vested during the period and the increased fair value of the awards granted due to the increase in our stock price.

In addition, there was a $5.2 million increase in third-party costs related to intellectual property included in our solutions and transaction processing costs incurred as a result of the increase in Registered Users from new and existing customers, as well as implementation and support personnel expenses that are reimbursable from our customers, a $3.5 million increase in co-location facility costs and depreciation for our data center assets resulting from the increased infrastructure necessary to support our growing customer base, a $1.8 million increase in amortization of acquired customer technology resulting from the businesses acquired in the fourth quarter of 2018, a $1.2 million increase in facilities, information technology, and other overhead costs which were allocated to our implementation and support departments, a $0.7 million increase from amortization of capitalized implementation services, and a $0.6 million increase in travel related and other discretionary expenses.

We defer certain payroll costs directly related to the implementation of our solutions to the extent those costs are considered to be recoverable from future revenues. However, a substantial portion of our implementation costs are not eligible for deferral and, as a result, are expensed in the period incurred. Costs related to implementations that have been deferred are amortized over the expected period of customer benefit. Additionally, we invest in personnel, business processes and systems infrastructure to standardize our business processes and drive future efficiency in our implementations, customer support and data center operations. We expect these investments will increase cost of revenues in absolute dollars as we continue to make investments in capacity and process improvement.

***Operating Expenses***

The following tables present our operating expenses for each of the periods indicated (dollars in thousands):

*Sales and Marketing*

| | Three Months Ended June 30, | | Change | | Six Months Ended June 30, | | Change | |
|---|---|---|---|---|---|---|---|---|
| | 2019 | 2018 | $ | (%) | 2019 | 2018 | $ | (%) |
| Sales and marketing | $ 15,866 | $ 12,108 | $ 3,758 | 31.0% | $ 31,671 | $ 23,074 | $ 8,597 | 37.3% |
| Percentage of revenues | 20.4% | 20.7% | | | 21.3% | 20.4% | | |

*Three Months Ended June 30, 2019 Compared to Three Months Ended June 30, 2018* . Sales and marketing expenses increased by $3.8 million , or 31.0% , from $12.1 million for the three months ended June 30, 2018 to $15.9 million for the three months ended June 30, 2019 . This increase was primarily attributable to a $2.8 million increase in personnel costs due to the growth of our sales and marketing organizations, which included a $2.1 million increase in personnel costs from the businesses acquired in the fourth quarter of 2018, and a $0.2 million increase in stock-based compensation expense allocated to sales and marketing expenses for the increase in the number of stock-based awards vested during the period and the increased fair value of the awards granted due to the increase in our stock price. In addition, there was a $0.5 million increase in the growth in our annual client conference, a $0.3 million increase in facilities and other overhead costs which were allocated to our sales and marketing departments, and a $0.1 million increase in travel related expenses.

*Six Months Ended June 30, 2019 Compared to Six Months Ended June 30, 2018* . Sales and marketing expenses increased by $8.6 million , or 37.3% , from $23.1 million for the six months ended June 30, 2018 to $31.7 million for the six months ended June 30, 2019 . This increase was primarily attributable to a $6.6 million increase in personnel costs due to the growth of our sales and marketing organizations, which included a $4.6 million increase in personnel costs from the businesses acquired in the fourth quarter of 2018, and a $0.7 million increase in stock-based compensation expense allocated to sales and marketing expenses for the increase in the number of stock-based awards vested during the period and the increased fair value of the awards granted due to the increase in our stock price. In addition, there was a $0.8 million increase in travel related expenses, a $0.6 million increase in the growth in our annual client conference, and a $0.5 million increase in facilities and other overhead costs which were allocated to our sales and marketing departments.

We anticipate that sales and marketing expenses will continue to increase in absolute dollars in the future as we add personnel to support our revenue growth and as we increase discretionary marketing spend to attract new customers, retain and grow existing customers and drive brand awareness. We expect such expenses to decline as a percentage of our revenues over time as our revenues grow.

*Research and Development*

| | Three Months Ended June 30, | | Change | | Six Months Ended June 30, | | Change | |
|---|---|---|---|---|---|---|---|---|
| | 2019 | 2018 | $ | (%) | 2019 | 2018 | $ | (%) |
| Research and development | $ 19,118 | $ 11,756 | $ 7,362 | 62.6% | $ 36,775 | $ 22,913 | $ 13,862 | 60.5% |
| Percentage of revenues | 24.6% | 20.1% | | | 24.7% | 20.2% | | |

*Three Months Ended June 30, 2019 Compared to Three Months Ended June 30, 2018* . Research and development expenses increased by $7.4 million , or 62.6% , from $11.8 million for the three months ended June 30, 2018 to $19.1 million for the three months ended June 30, 2019 . This increase was primarily attributable to a $6.7 million increase in personnel costs as a result of the growth in our research and development organization to support continued enhancements to our solutions, which included a $2.4 million increase in personnel costs from the businesses acquired in the fourth quarter of 2018, and a $0.9 million increase in stock-based compensation expense allocated to research and development expenses for the increase in the number of stock-based awards vested during the period and the increased fair value of the awards granted due to the increase in our stock price. In addition, there was a $0.6 million increase in facilities and other overhead costs which were allocated to our research and development departments, and a $0.1 million increase in travel related expenses.

*Six Months Ended June 30, 2019 Compared to Six Months Ended June 30, 2018* . Research and development expenses increased by $13.9 million , or 60.5% , from $22.9 million for the six months ended June 30, 2018 to $36.8 million for the six months ended June 30, 2019 . This increase was primarily attributable to a $12.4 million increase in personnel costs as a result of the growth in our research and development organization to support continued enhancements to our solutions, which included a $4.4 million increase in personnel costs from the businesses acquired in the fourth quarter of 2018, and a $1.6 million increase in stock-based compensation expense allocated to research and development expenses for the increase in the number of stock-based awards vested during the period and the increased fair value of the awards granted due to the increase in our stock price. In addition, there was a $1.2 million increase in facilities and other overhead costs which were allocated to our research and development departments, and a $0.3 million increase in travel related and other discretionary expenses.

We anticipate that research and development expenses will increase in absolute dollars in the future as we continue to support and expand our platform and enhance our existing solutions.

*General and Administrative*

| | Three Months Ended June 30, | | Change | | Six Months Ended June 30, | | Change | |
|---|---|---|---|---|---|---|---|---|
| | 2019 | 2018 | $ | (%) | 2019 | 2018 | $ | (%) |
| General and administrative | $ 14,079 | $ 10,798 | $ 3,281 | 30.4% | $ 27,939 | $ 21,094 | $ 6,845 | 32.4% |
| Percentage of revenues | 18.1% | 18.4% | | | 18.8% | 18.6% | | |

*Three Months Ended June 30, 2019 Compared to Three Months Ended June 30, 2018* . General and administrative expenses increased by $3.3 million , or 30.4% , from $10.8 million for the three months ended June 30, 2018 to $14.1 million for the three months ended June 30, 2019 . The increase in general and administrative expenses was primarily attributable to a $2.9 million increase in personnel costs to support the growth of our business, which included a $1.1 million increase in stock-based compensation expense allocated to general and administrative expenses for the increase in the number of stock-based awards vested during the period and the increased fair value of the awards granted due to the increase in our stock price, and a $0.6 million increase in personnel costs from the businesses acquired in the fourth quarter of 2018. In addition, there was a $0.2 million increase in facilities and other overhead costs which were allocated to our general and administrative departments, and a $0.2 million increase in travel related and other discretionary expenses.

*Six Months Ended June 30, 2019 Compared to Six Months Ended June 30, 2018* . General and administrative expenses increased by $6.8 million , or 32.4% , from $21.1 million for the six months ended June 30, 2018 to $27.9 million for the six months ended June 30, 2019 . The increase in general and administrative expenses was primarily attributable to a $5.9 million increase in personnel costs to support the growth of our business, which included a $2.2 million increase in stock-based compensation expense allocated to general and administrative expenses for the increase in the number of stock-based awards vested during the period and the increased fair value of the awards granted due to the increase in our stock price, and a $1.3 million increase in personnel costs from the businesses acquired in the fourth quarter of 2018. In addition, there was a $0.4

million increase in facilities and other overhead costs which were allocated to our general and administrative departments, and a $0.4 million increase in travel related and other discretionary expenses.

General and administrative expenses include costs to comply with regulations governing public companies, costs of directors' and officers' liability insurance, investor relations activities and costs to comply with Section 404 of the Sarbanes-Oxley Act, or SOX. We anticipate that general and administrative expenses will continue to increase in absolute dollars in the future as we continue to incur both increased external audit fees as well as additional spending to ensure continued regulatory and SOX compliance. We expect such expenses to decline as a percentage of our revenues over time as our revenues grow.

*Acquisition Related Costs*

| | Three Months Ended June 30, | | Change | | Six Months Ended June 30, | | Change | |
|---|---|---|---|---|---|---|---|---|
| | 2019 | 2018 | $ | (%) | 2019 | 2018 | $ | (%) |
| Acquisition related costs | $ 1,977 | $ 258 | $ 1,719 | 666.3% | $ 4,695 | $ 514 | $ 4,181 | 813.4% |
| Percentage of revenues | 2.5% | 0.4% | | | 3.2% | 0.5% | | |

*Three Months Ended June 30, 2019 Compared to Three Months Ended June 30, 2018* . Acquisition related costs increased by $1.7 million , or 666.3% , from $0.3 million for the three months ended June 30, 2018 to $2.0 million for the three months ended June 30, 2019 . The expense for the three months ended June 30, 2019 included $1.1 million for changes in the fair value of the contingent consideration related to the acquisition of Cloud Lending which was consummated in October 2018 and $0.9 million of compensation expense related to the retention bonuses for employees of companies acquired in the fourth quarter of 2018, while the expense for the three months ended June 30, 2018 was comprised solely of compensation expense related to the retention bonuses for employees of companies acquired in 2015 and 2017. The final retention bonuses related to the companies acquired in 2015 were paid out in the third quarter of 2018.

*Six Months Ended June 30, 2019 Compared to Six Months Ended June 30, 2018* . Acquisition related costs increased by $4.2 million , or 813.4% , from $0.5 million for the six months ended June 30, 2018 to $4.7 million for the six months ended June 30, 2019 . The expense for the six months ended June 30, 2019 included $3.5 million for changes in the fair value of the contingent consideration related to the acquisition of Cloud Lending which was consummated in October 2018 and $1.3 million of compensation expense related to the retention bonuses for employees of companies acquired in the fourth quarter of 2018, while the expense for the six months ended June 30, 2018 was comprised solely of compensation expense related to the retention bonuses for employees of companies acquired in 2015 and 2017. The final retention bonuses related to the companies acquired in 2015 were paid out in the third quarter of 2018.

*Amortization of Acquired Intangibles*

| | Three Months Ended June 30, | | Change | | Six Months Ended June 30, | | Change | |
|---|---|---|---|---|---|---|---|---|
| | 2019 | 2018 | $ | (%) | 2019 | 2018 | $ | (%) |
| Amortization of acquired intangibles | $ 905 | $ 368 | $ 537 | 145.9% | $ 2,120 | $ 736 | $ 1,384 | 188.0% |
| Percentage of revenues | 1.2% | 0.6% | | | 1.4% | 0.6% | | |

*Three Months Ended June 30, 2019 Compared to Three Months Ended June 30, 2018* . Amortization of acquired intangibles increased by $0.5 million , or 145.9% , from $0.4 million for the three months ended June 30, 2018 to $0.9 million for the three months ended June 30, 2019 as a result of the intangibles acquired in the Cloud Lending and Gro acquisitions in the fourth quarter of 2018. The acquired intangible assets are also related to our asset purchase in 2017 and our business combinations in 2015. These amounts are amortized on a straight-line basis over the estimated useful lives of the related assets.

*Six Months Ended June 30, 2019 Compared to Six Months Ended June 30, 2018* . Amortization of acquired intangibles increased by $1.4 million , or 188.0% , from $0.7 million for the six months ended June 30, 2018 to $2.1 million for the six months ended June 30, 2019 as a result of the intangibles acquired in the Cloud Lending and Gro acquisitions in the fourth quarter of 2018. The acquired intangible assets are also related to our asset purchase in 2017 and our business combinations in 2015. These amounts are amortized on a straight-line basis over the estimated useful lives of the related assets.

*Total Other Income (Expense), Net*

| | Three Months Ended June 30, | | Change | | Six Months Ended June 30, | | Change | |
|---|---|---|---|---|---|---|---|---|
| | 2019 | 2018 | $ | (%) | 2019 | 2018 | $ | (%) |
| Total other income (expense), net | $ (3,217) | $ (2,105) | $ (1,112) | (52.8)% | $ (5,424) | $ (3,128) | $ (2,296) | (73.4)% |
| Percentage of revenues | (4.1)% | (3.6)% | | | (3.6)% | (2.8)% | | |

*Three Months Ended June 30, 2019 Compared to Three Months Ended June 30, 2018* . Total other income (expense), net decreased by $1.1 million from expense of $2.1 million for the three months ended June 30, 2018 to an expense of $3.2 million for the three months ended June 30, 2019 . The decrease was primarily from additional interest expense for the three months ended June 30, 2019 of $0.9 million from the amortization of debt discount, issuance costs, and coupon interest attributable to our 2026 Notes issued in June 2019 and a loss on disposal of long-lived assets of $0.2 million .

*Six Months Ended June 30, 2019 Compared to Six Months Ended June 30, 2018* . Total other income (expense), net decreased by $2.3 million from expense of $3.1 million for the six months ended June 30, 2018 to an expense of $5.4 million for the six months ended June 30, 2019 . Interest expense for the six months ended June 30, 2019 increased by $2.7 million of interest expense from the amortization of debt discount, issuance costs, and coupon interest attributable to our 2023 Notes issued in February 2018 and 2026 Notes issued in June 2019 and a loss on disposal of long-lived assets of $0.2 million , offset by an increase of $0.7 million from interest income earned on cash, cash equivalents, and investments.

***Seasonality and Quarterly Results***

Our overall operating results fluctuate from quarter to quarter as a result of a variety of factors, including the timing of investments in growing our business. The timing of our implementation activities and corresponding revenues from new customers are subject to fluctuation based on the timing of our sales. Sales may tend to be lower in the first quarter of each year than in subsequent quarters but any resulting impact on our results of operation has been difficult to measure due to the timing of our implementations and overall growth in our business. The timing of our implementations also varies period-to-period based on our implementation capacity, the number of solutions purchased by our customers, the size and unique needs of our customers and the readiness of our customers to implement our solutions. Our solutions are often the most frequent point of engagement between our customers and their End Users. As a result, we and our customers are very deliberate and careful in our implementation activities to help ensure a successful roll-out of the solutions to End Users and increase the registration of new End Users. Unusually long or short implementations, for even a small number of customers, may result in short-term quarterly variability in our results of operations.

Our quarterly results of operations may vary significantly in the future, and period-to-period comparisons of our operating results may not be meaningful and should not be relied upon as an indication of future results.

**Liquidity and Capital Resources**

***Sources of Liquidity***

We have financed our operations primarily through the proceeds from the issuance of common stock in our initial public offering in March 2014, and additional registered common stock offerings, including our June 2019 common stock offering, cash flows from operations, our February 2018 convertible note offering, and our June 2019 convertible note offering. As of June 30, 2019 , our principal sources of liquidity were cash, cash equivalents and investments of $617.7 million .

***Cash Flows***

The following table summarizes our cash flows for the periods indicated (in thousands):

| | Six Months Ended June 30, | |
|---|---|---|
| | 2019 | 2018 |
| Net cash provided by (used in): | | |
| Operating activities | $ (18,679) | $ (21,284) |
| Investing activities | 23,044 | (71,635) |
| Financing activities | 470,526 | 211,696 |
| Net increase in cash, cash equivalents, and restricted cash | $ 474,891 | $ 118,777 |

*Cash Flows from Operating Activities*

Cash provided by (used in) operating activities is primarily influenced by the amount and timing of customer receipts and vendor payments, fair value re-measurement related to contingent earnout payment liabilities and by the amount of cash we invest in personnel and infrastructure to support the anticipated growth of our business and increase in the number of installed customers.

For the six months ended June 30, 2019 , our net cash and cash equivalents used in operating activities were $18.7 million , which consisted of a net loss of $36.6 million and cash outflows from changes in operating assets and liabilities of $24.4 million , partially offset by non-cash adjustments of $42.4 million . Cash outflows were the result of a $17.4 million increase in deferred solution and implementation costs due to our increased customer growth and new and existing customers undergoing implementations during the period, a $7.0 million increase in accounts receivable due to the timing of billings at the end of the current quarter, a $3.2 million increase in contract assets, a $2.9 million decrease in other long-term liabilities, and a $1.5 million increase in prepaid and other current assets related to various prepaid expenses. Cash inflows were the result of a $5.7 million increase in deferred revenue due to increased payments and deposits received from customers prior to the recognition of revenue from those related payments and a $2.1 million decrease in other long-term assets. Non-cash items consisted primarily of $19.0 million of stock-based compensation expense, $11.8 million of depreciation and amortization expense due to growth in our fixed assets and acquired intangible assets, $6.1 million of amortization of deferred implementation and deferred solution and other costs, $5.8 million in amortization of the 2023 Notes and 2026 Notes discounts and related debt issuance costs, partially offset by $0.3 million of other non-cash items.

For the six months ended June 30, 2018, our net cash and cash equivalents used in operating activities were $21.3 million, which consisted a net loss of $14.7 million and cash outflows from changes in operating assets and liabilities of $35.8 million, partially offset by non-cash adjustments of $29.2 million. Cash outflows were the result of a $13.8 million increase in accounts receivable due to the timing of billings and customer payments, an $8.7 million increase in deferred solution and implementation costs due to our increased customer growth and new and existing customers undergoing implementations during the period, a $4.3 million decrease in deferred revenue due to the recognition of revenue from prior payments exceeding deposits received from customers during the period, a $3.3 million decrease in accrued liabilities mainly from the payment of annual bonuses, a $2.2 million increase in contract assets added as a result of the adoption of the new revenue standard, a $1.7 million increase in prepaid and other current assets related to various prepaid expenses, a $0.8 million decrease in accounts payable due to timing of payments, a $0.7 million decrease in other long-term liabilities, and a $0.2 million increase in other long-term assets. Non-cash items consisted primarily of $13.1 million of stock-based compensation expense, $7.8 million of depreciation and amortization expense due to growth in our fixed assets and acquired intangible assets, $4.3 million of amortization of deferred implementation and deferred solution and other costs, $3.4 million in amortization of the 2023 Notes discount and related debt issuance costs, and $0.6 million of other non-cash items.

*Cash Flows from Investing Activities*

Our investing activities have consisted primarily of purchases and maturities of investments, our recent acquisitions, and purchases of property and equipment to support our growth. Purchases of property and equipment may vary period-to-period due to the timing of the expansion of our operations, data center and other technical infrastructure.

For the six months ended June 30, 2019 , net cash provided by investing activities was $23.0 million , consisting primarily of $59.0 million from maturities of investments, partially offset by $24.8 million for the purchase of investments, $10.9 million for the purchase of property and equipment, and $0.3 million from the purchase of intangible assets.

For the six months ended June 30, 2018, net cash used in investing activities was $71.6 million, consisting primarily of $74.4 million for the purchase of investments, $11.2 million for the purchase of property and equipment, and $0.2 million for release of the hold back from the asset purchase in 2017, partially offset by $14.1 million from maturities of investments.

*Cash Flows from Financing Activities*

Our recent financing activities have consisted primarily of our June 2019 common stock offering, our June 2019 convertible note offering, our February 2018 convertible note offering, net proceeds from exercises of options to purchase our common stock, as well as payments on financing obligations.

For the six months ended June 30, 2019 , net cash provided by financing activities of $470.5 million was due to the issuance of $307.3 million principal amount of the 2026 Notes, net of issuance costs, partially offset by the Capped Call transactions of $40.8 million , and proceeds from the issuance of common stock of $195.6 million , net of issuance costs, from the June 2019 common stock offering. In addition, cash flows from financing activities included $8.4 million of cash received from the exercise of stock options.

For the six months ended June 30, 2018, net cash provided by financing activities was $211.7 million, which was primarily due to the issuance of $223.2 million principal amount of the 2023 Notes, net of issuance costs, and the related sale of warrants for $22.4 million, offset by the purchase of convertible note bond hedges for $41.7 million. In addition, cash flows from financing activities included $7.8 million of cash received from the exercise of stock options.

**Contractual Obligations and Commitments**

During the six months ended June 30, 2019 , and subsequent to June 30, 2019 , except as noted below, there were no material changes to our contractual obligations and commitments disclosures as set forth under the caption, "Contractual Obligations and Commitments" in the Management's Discussion and Analysis of Financial Condition and Results of Operations, as reported in our Annual Report on Form 10-K, filed with the SEC on February 19, 2019.

In June 2019, we issued the 2026 Notes due June 1, 2026, unless earlier converted or repurchased in accordance with their terms prior to such date. The 2026 Notes bear interest at 0.75% per annum, payable semiannually on June 1 and December 1 of each year, beginning on December 1, 2019. See Note 8 - Convertible Senior Notes to the interim unaudited condensed consolidated financial statements included in this Quarterly Report on Form 10-Q.

The following table summarizes our contractual obligations and commitments at June 30, 2019 (in thousands):

| | Payment due by period | | | | |
|---|---|---|---|---|---|
| | **Less Than 1 Year** | **1 to 3 Years** | **3 to 5 Years** | **More Than 5 Years** | **Total** |
| Convertible Notes, including interest | $ 4,032 | $ 9,919 | $ 235,607 | $ 320,994 | $ 570,552 |
| Operating lease obligations | 7,168 | 11,174 | 9,060 | 14,772 | 42,174 |
| Purchase commitments | 13,484 | 22,040 | 12,356 | — | 47,880 |
| | $ 24,684 | $ 43,133 | $ 257,023 | $ 335,766 | $ 660,606 |

**Off-Balance Sheet Arrangements**

As of June 30, 2019 , 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.

**Recent Accounting Pronouncements**

In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)," to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. In July 2018, the FASB issued ASU 2018-10, "Codification Improvements to Topic 842 (Leases)," which provides narrow amendments to clarify how to apply certain aspects of the new lease standard. In July 2018, the FASB also issued ASU 2018-11, "Targeted Improvements," which provides the option to adopt ASU No. 2016-02 retrospectively for each prior period presented or as of the adoption date with a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. In January 2019, the FASB issued ASU No. 2019-01, "Leases (Topic 842): Codification Improvements" to clarify the required disclosures of ASU No. 2016-02 and explicitly exempts entities from disclosing the effect of the change for the interim period. We adopted the standard effective January 1, 2019 and we elected the package of practical expedients permitted under the transition guidance within Topic 842, which among other things, allows us to carry forward the historical lease classification and the practical expedient to not separate lease and non-lease components of an agreement. Adoption of the new standard resulted in the recording of lease assets and lease liabilities of approximately $27.0 million and $36.2 million, respectively, as of January 1, 2019. The difference between the lease assets and lease liabilities is the reclassification of deferred rent on our balance sheet at the date of adoption. The standard had no impact on our condensed consolidated statement of comprehensive loss or our condensed consolidated statement of cash flows.

In June 2016, the FASB issued ASU 2016-13, "Financial Instruments - Credit Losses (Topic 326)" which modifies the measurement of expected credit losses of certain financial instruments. Credit losses on trade and other receivables, held-to-maturity debt securities , and other instruments will reflect our current estimate of the expected credit losses and will generally result in the earlier recognition of allowance for losses. The new guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019, with early adoption permitted. We are currently evaluating the impact of adopting this new accounting guidance and do not expect the adoption of this standard to have a material impact on our condensed consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04, "Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment" which simplifies the accounting for goodwill impairment by removing Step 2 of the goodwill impairment test and requires an entity to write down the carrying value of goodwill up to the amount by which the carrying amount of a reporting unit exceeds its fair value. The standard is effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years and early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. We do not expect the adoption of this standard to have a material impact on our condensed consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-15, "Intangibles-Goodwill and Other-Internal-Use Software (Subtopic 350-40)," which aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal-use software license). ASU 2018-15 will be effective beginning in our first quarter of 2020, with early adoption permitted. The ASU may be applied retrospectively or prospectively to all implementation costs incurred after the date of adoption. We have elected to early adopt the ASU as of January 1, 2019 on a prospective basis. No implementation costs related to hosting arrangements were capitalized during the three and six months ended June 30, 2019 .

**Critical Accounting Policies and Estimates**

The preparation of our interim unaudited condensed consolidated financial statements in accordance with GAAP requires estimates, judgments and assumptions that affect the reported amounts and classifications of assets and liabilities, revenues and expenses and the related disclosures of contingent liabilities in our interim unaudited condensed consolidated financial statements and accompanying notes. The SEC has defined a company's critical accounting policies as the ones that are most important to the portrayal of the company's financial condition and results of operations, and which require the company to make its most difficult and subjective judgments, often as a result of the need to make estimates of matters that are inherently uncertain. Based on this definition, we have identified the following critical accounting policies and estimates:

- Revenue recognition;
- Contract balances;
- Accounts receivable;
- Deferred revenues;
- Deferred implementation costs;
- Deferred solution and other costs;
- Stock-based compensation;
- Convertible senior notes;
- Purchase price allocation, intangible assets and goodwill;
- Capitalization of software development costs;
- Leases;
- Contingent consideration; and
- Income taxes.

We have other key accounting policies which involve the use of estimates, judgments and assumptions that are significant to understanding our results. See Note 2 - Summary of Significant Accounting Policies to the interim unaudited condensed consolidated financial statements included in this Quarterly Report on Form 10-Q. Of those policies, we believe that the accounting policies enumerated above involve the greatest degree of complexity and exercise of judgment by our management.

During the six months ended June 30, 2019 , there were no significant changes in our critical accounting policies or estimates which were included in the consolidated financial statements and the accompanying notes for the fiscal year ended December 31, 2018 , which are included in our Annual Report on Form 10-K, filed with the SEC on February 19, 2019.

We evaluate our estimates, judgments and assumptions on an ongoing basis, and while we believe that our estimates, judgments and assumptions are reasonable, they are based upon information available at the time. Actual results may differ significantly from these estimates under different assumptions, judgments or conditions.

## Item 3. Quantitative and Qualitative Disclosures About Market Risk.

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

### Interest Rate Risk

We have cash and cash equivalents held primarily in cash and money market funds. In addition, we have marketable securities which are primarily held in U.S. government agency bonds, corporate bonds and commercial paper, and certificates of deposit. Cash and cash equivalents are held for working capital purposes. Marketable securities are held and invested with capital preservation as the primary objective. Due to the short-term nature of these investments, we believe that we do not have any material exposure to changes in the fair value of our investment portfolio as a result of changes in interest rates. Any declines in interest rates will reduce future interest income. As of June 30, 2019 , we had an outstanding principal amount of $546.3 million of 2023 Notes and 2026 Notes, which each have a fixed annual interest rate of 0.75% . If overall interest rates fell by 10% in 2019 or 2018, our interest income would not have been materially affected.

### Foreign Currency Risk

During 2018, we commenced international operations. As a result, our results of operations and cash flows are subject to fluctuations due to changes in foreign currency exchange rates. As of June 30, 2019 , our most significant currency exposures were the Indian rupee, British pound, and Australian dollar. As of June 30, 2019 , we had operating subsidiaries in India, the United Kingdom, and Australia. Due to the relatively low volume of payments made by us through these foreign subsidiaries, we do not believe we have significant exposure to foreign currency exchange risks. However, fluctuations in currency exchange rates could harm our results of operations in the future.

We currently do not use derivative financial instruments to mitigate foreign currency exchange risks. We will continue to review this issue and may consider hedging certain foreign exchange risks in future years.

### Inflation Risk

We do not believe that inflation has had a material effect on our business, financial condition or results of operations. We continue to monitor the impact of inflation in order to reduce its effects through pricing strategies, productivity improvements and cost reductions. If our costs were to become subject to significant inflationary pressures, we may not be able to fully offset such higher costs through price increases. Our inability or failure to do so could harm our business, financial condition and results of operations.

**Item 4. Controls and Procedures.**

**Evaluation of Disclosure Controls and Procedures**

The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act refers to controls and procedures that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that such information is accumulated and communicated to a company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures as of June 30, 2019 , the end of the period covered by this Quarterly Report on Form 10-Q. Based upon such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective as of such date.

**Changes in Internal Control over Financial Reporting**

There were no material changes in our internal control over financial reporting during the three-month period covered by this Quarterly Report on Form 10-Q, which were identified in connection with management's evaluation required by Rules 13a-15(d) and 15d-15(d) under the Exchange Act, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## PART II - OTHER INFORMATION

### Item 1. Legal Proceedings.

From time to time, we may become involved in legal proceedings arising in the ordinary course of our business. Management believes that there are no claims or actions pending against us, the ultimate disposition of which would have a material impact on our business, financial condition, results of operations or cash flows.

### Item 1A. Risk Factors.

Our business, prospects, financial condition, operating results and the trading price of our common stock could be materially adversely affected by any of the risks and uncertainties described below, as well as other risks not currently known to us or that are currently considered immaterial. In assessing these risks, you should also refer to the other information contained in this Quarterly Report on Form 10-Q, including our condensed consolidated financial statements and related notes.

***We have experienced rapid growth in recent periods and if we fail to manage our growth effectively, we may be unable to execute our business plan, maintain high levels of service and customer satisfaction or adequately address competitive challenges, and our financial performance may be adversely affected.***

Since our inception, our business has rapidly grown, which has resulted in large increases in our number of employees, expansion of the types of solutions we sell and the customers we sell them to, expansion to international locations and international customers, expansion of our infrastructure, enhancement of our internal systems and other significant changes and additional complexities. Our revenues increased from $150.2 million for the twelve months ended December 31, 2016 to $194.0 million for the twelve months ended December 31, 2017, and $241.1 million for the twelve months ended December 31, 2018. While we intend to further expand our overall business, customer base, and number of employees, our recent growth rate is not necessarily indicative of the growth that we will achieve in the future. The growth in our business generally, our management of a growing workforce and international customer base and the stress of such growth on our internal controls and systems require substantial management effort, infrastructure and operational capabilities. To support our growth, we must continue to improve our management resources and our operational and financial controls and systems, and these improvements may increase our expenses more than anticipated and result in a more complex business, and our failure to timely and effectively implement these improvements could have an adverse effect on our operations and financial results. In addition, our increased focus on selling our solutions to larger customers and the increased breadth of our digital solution offerings and the types of customers we serve may result in greater uncertainty and variability in our business and sales results. We will also have to anticipate the necessary expansion of our relationship management, implementation, customer service and other personnel to support our growth and achieve high levels of customer service and satisfaction, particularly as we sell to larger customers that have heightened levels of complexity in their hardware, software and network infrastructure needs and as we sell a broader range of digital solutions to a broader set of customers. Our success will depend on our ability to plan for and manage this growth effectively. If we fail to anticipate and manage our growth or are unable to provide high levels of system performance and customer service, our reputation, as well as our business, results of operations and financial condition, could be harmed.

***If the market for our solutions develops more slowly than we expect or changes in a way that we fail to anticipate, our sales would suffer and our operating results would be harmed.***

The market for financial services is dramatically changing, and we do not know whether RCFIs will continue to adopt digital banking solutions such as ours in the future, whether traditional and emerging financial services providers will adopt our existing and new solutions or whether the market will change in ways that we do not anticipate. Many RCFIs have invested substantial personnel and financial resources in legacy software, and these institutions may be reluctant or unwilling to convert from their existing systems to our solutions. For RCFIs, switching from one provider of digital banking solutions (or from an internally developed legacy system) to a new provider is a significant endeavor. Many potential customers believe switching providers involves too many potential disadvantages such as disruption of business operations, loss of accustomed functionality, and increased costs (including conversion and transition costs). Furthermore, some RCFIs may be reluctant or unwilling to use a cloud-based solution over concerns such as the security of their data and reliability of the delivery model. These concerns or other considerations may cause RCFIs to choose not to adopt cloud-based solutions such as ours or to adopt alternative solutions, either of which would harm our operating results. We attempt to overcome these concerns through value enhancing strategies such as a flexible integration process and continued investment in the enhanced functionality and features of our solutions. If RCFIs are unwilling to transition from their legacy systems, the demand for our digital banking solutions and related services could decline and adversely affect our business, operating results and financial condition.

Our future success also depends on our ability to sell new solutions and enhanced solutions to our current and new customers. As we create new solutions and enhance our existing solutions to support new customer types, technologies and devices, these solutions and related services may not be attractive to customers. In addition, promoting and selling these new and enhanced solutions may require increasingly costly sales and marketing efforts, and if customers choose not to adopt these solutions, our business could suffer.

***Our business could be adversely affected if our customers are not satisfied with our solutions, particularly as we introduce new products and solutions, or our systems, infrastructure and resources fail to meet their needs.***

Our business depends on our ability to satisfy our customers and meet their needs. Our customers use a variety of network infrastructure, hardware and software, which typically increases in complexity the larger the customer is, and our solutions must support the specific configuration of our customers' existing systems, including in many cases the solutions of third-party providers. If our solutions do not currently support a customer's required data format or appropriately integrate with a customer's applications and infrastructure, then we must configure our solutions to do so, which could negatively affect the performance of our systems and increase our expenses and the time it takes to implement our solutions. Any failure of or delays in our systems or resources could cause service interruptions or impaired system performance. Some of our customer agreements require us to issue credits for downtime in excess of certain thresholds, and in some instances give our customers the ability to terminate the agreements in the event of significant amounts of downtime, or if we experience other defects with our solutions. If sustained or repeated, these performance issues could reduce the attractiveness of our solutions to new and existing customers, cause us to lose customers, and lower renewal rates by existing customers, each of which could adversely affect our revenue and reputation. In addition, negative publicity resulting from issues related to our customer relationships, regardless of accuracy, may damage our business by adversely affecting our ability to attract new customers and maintain and expand our relationships with existing customers.

If the use of our solutions increases, or if our customers demand more advanced features from our solutions, we will need to devote additional resources to improving our solutions, and we also may need to expand our technical infrastructure and related resources at a more rapid pace than we have in the past. This would involve spending substantial amounts to purchase or lease data center capacity and equipment, subscribe to new or additional third-party hosting services, upgrade our technology and infrastructure or introduce new or enhanced solutions. It takes a significant amount of time to plan, develop and test changes to our solutions and related infrastructure and resources, and we may not be able to accurately forecast demand or predict the results we will realize from such improvements. There are inherent risks associated with changing, upgrading, improving and expanding our technical infrastructure and related resources. Any failure of our solutions to operate effectively with future infrastructure and technologies could reduce the demand for our solutions, resulting in customer dissatisfaction and harm to our business. Also, any expansion of our infrastructure and related resources would likely require that we appropriately scale our internal business systems and services organization, including implementation and customer support services, to serve our growing customer base. If we are unable to respond to these changes or fully and effectively implement them in a cost-effective and timely manner, our service may become ineffective, we may lose customers, and our operating results may be negatively impacted.

***The markets in which we participate are intensely competitive, and pricing pressure, new technologies or other competitive dynamics could adversely affect our business and operating results.***

We currently compete with providers of technology and services in the financial services industry, including point system vendors and core processing vendors, as well as systems internally-developed by financial services providers. With respect to our digital banking platform, we have a number of point system competitors, including NCR Corporation, First Data Corporation, D3 Technology, Inc., Alkami Technology, Inc. and Kony, Inc. in the online, consumer and small business banking space and Finastra, ACI Worldwide, Inc., FIS and Bottomline Technologies (de), Inc. in the commercial banking space. We also compete with core processing vendors that provide systems and services such as Fiserv, Inc., Jack Henry and Associates, Inc. and FIS. With respect to our lending and leasing platform, we compete against a number of point system competitors, including Abrigo, Baker Hill Solutions, LLC, Fair Isaac Corporation, nCino, Inc., Finastra, Moody's Analytics, Inc., Oracle Corporation, Temenos AG, and core processing vendors, including FIS and Fiserv. With respect to our BaaS solutions, due to the vast number of potential use cases and customer segments, the list of potential competitors is extremely broad and varied, but includes companies across the retail banking, financial services, transaction processing, consumer technology and financial technology services industries. Many of our competitors have significantly more financial, technical, marketing and other resources than we have, may devote greater resources to the promotion, sale and support of their systems than we can, have more extensive customer bases and broader customer relationships than we have and have longer operating histories and greater name recognition than we have. In addition, many of our competitors expend more funds on research and development.

We may also face competition from new companies entering our markets, which may include large established businesses that decide to develop, market or resell competitive solutions, acquire one of our competitors or form a strategic alliance with one of our competitors. In addition, new companies entering our markets may choose to offer competitive solutions at little or no additional cost to the customer by bundling them with their existing applications, including adjacent financial services technologies and core processing software. New entrants to the markets we serve might also include financial services providers developing financial services solutions and other technologies, including solutions built using competing BaaS solutions or open API platforms. Competition from these new entrants may make our business more difficult and adversely affect our results.

If we are unable to compete in this environment, sales and renewals of our solutions could decline and adversely affect our business, operating results and financial condition. With the introduction of new technologies and potential new entrants into the markets for our solutions, we expect competition to intensify in the future, which could harm our ability to increase sales and achieve profitability. In addition, we may face increased competition in our existing markets as we enter new markets or sections of a market with larger or different customers and new solutions. Our industry has also experienced recent consolidation which we believe may continue. Any further consolidation our industry experiences could lead to increased competition and result in pricing pressure or loss of market share, either of which could have a material adverse effect on our business, limit our growth prospects or reduce our revenues.

***If we are unable to effectively integrate our solutions with other systems used by our customers and prospective customers, including if we are forced to discontinue integration due to security or quality concerns with a third-party system, or if there are performance issues with such third-party systems, our solutions will not operate effectively and our operations will be adversely affected.***

The functionality of our solutions depends on our ability to integrate with other third-party systems used by our customers, including core processing software. Certain providers of these third-party systems also offer solutions that are competitive with our solutions and may have an advantage over us with customers using their software by having better ability to integrate with their software and by being able to bundle their competitive products with other applications used by our customers and prospective customers at favorable pricing. We do not have formal arrangements with many of these third-party providers regarding our access to their APIs to enable these customer integrations.

Our business may be harmed if any of our third-party providers:

- changes the features or functionality of its applications and platforms in a manner adverse to us;
- discontinues or limits our solutions' access to its systems;
- suffers a security incident or other incident that requires us to discontinue integration with its system;
- terminates or does not allow us to renew or replace our existing contractual relationships on the same or better terms;
- modifies its terms of service or other policies, including fees charged to, or other restrictions on, us or our customers; or
- establishes more favorable relationships with one or more of our competitors, or acquires one or more of our competitors and offer competing services.

Such changes could limit or prevent us from integrating our solutions with these third-party systems, which could impair the functionality of our solutions, prohibit the use of our solutions or limit our ability to sell our solutions to customers, each of which could harm our business. If we are unable to integrate with such third-party software as a result of changes to or restricted access to the software by such third parties during the terms of existing agreements with customers using such third-party software, we may not be able to meet our contractual obligations to customers, which may result in disputes with customers and harm to our business. In addition, if any third-party software providers experience an outage, our solutions integrated with such software will not function properly or at all, and our customers may be dissatisfied with our solutions. If the software of such third-party providers has performance or other problems, such issues may reflect poorly on us and the adoption and renewal of our solutions and our business may be harmed. Although our customers may be able to switch to alternative technologies if a provider's services were unreliable or if a provider was to limit such customer's access and utilization of its data or the provider's functionality, our business could nevertheless be harmed due to the risk that our customers could reduce their use of our solutions.

***Our customers are highly regulated and subject to a number of challenges and risks. Our failure to comply with laws and regulations applicable to us as a technology provider to financial services providers and to enable our customers to comply with the laws and regulations applicable to them could adversely affect our business and results of operations, increase costs and impose constraints on the way we conduct our business.***

Our customers and prospective customers are highly regulated and may be required to comply with stringent regulations in connection with subscribing to and implementing our solutions. As a provider of technology to RCFIs, we are examined on a periodic basis by various regulatory agencies and required to review certain of our suppliers and partners. The examination handbook and other guidance issued by the FFIEC govern the examination of our operations and include a review of our systems and data center and technical infrastructure, management, financial condition, development activities and our support and delivery capabilities. If deficiencies are identified, customers may choose to terminate or reduce their relationships with us. In addition, while much of our operations are not directly subject to the same regulations applicable to RCFIs, we are generally obligated to our customers to provide software solutions and maintain internal systems and processes that comply with federal, state and other regulations applicable to them. In particular, as a result of obligations under our customer agreements, we are required to comply with certain provisions of the Gramm-Leach-Bliley Act related to the privacy of consumer information and may be subject to other privacy and data security laws because of the solutions we provide. In addition, numerous regulations have been proposed and are still being written to implement the Dodd-Frank Act, including requirements for enhanced due diligence of the internal systems and processes of companies like ours by their financial institution customers. In general, larger financial institutions are subject to more stringent regulations and as a result, as we sell our solutions to larger financial institutions, we will become obligated to meet more stringent regulatory standards, including more in-depth audits. Still further, President Donald Trump and the Congressional majority have indicated that the Dodd-Frank Act will be under further scrutiny and some of the provisions of the Dodd-Frank Act rules promulgated thereunder may be revised, repealed, or amended. If we have to make changes to our internal processes and solutions as a result of these regulatory changes, we could be required to invest substantial additional time and funds and divert time and resources from other corporate purposes to remedy any identified deficiency.

This evolving, complex and often unpredictable regulatory environment could result in our failure to provide regulatory-compliant solutions, which could result in customers' not purchasing our solutions or terminating their agreements with us or the imposition of fines or other liabilities for which we may be responsible. In addition, federal, state or foreign agencies may attempt to further regulate our activities in the future. For example, Congress could enact legislation to regulate providers of electronic commerce services as consumer financial services providers or under another regulatory framework. If enacted or deemed applicable to us, such laws, rules or regulations could be imposed on our activities or our business thereby rendering our business or operations more costly, burdensome, less efficient or impossible, any of which could have a material adverse effect on our business, financial condition and operating results.

***We are subject to various global data privacy and security regulations, which could result in additional costs and liabilities to us.***

Our business is subject to a wide variety of local, state, national and international laws, directives and regulations that apply to the collection, use, retention, protection, disclosure, transfer and other processing of personal data. These data protection and privacy-related laws and regulations continue to evolve and may result in ever-increasing regulatory and public scrutiny and escalating levels of enforcement and sanctions and increased costs of compliance. In the United States, these include rules and regulations promulgated under the authority of the Federal Trade Commission, and state breach notification laws. If there is a breach of our systems and we know or suspect that unencrypted personal customer or End User information has been stolen, we may be required to inform the representative state attorney general or federal or country regulator, media and credit reporting agencies, and any customers whose information was stolen, which could harm our reputation and business. Other states and countries have enacted different requirements for protecting personal information collected and maintained electronically. We expect that there will continue to be new proposed laws, regulations and industry standards concerning privacy, data protection and information security in the United States, the European Union and other jurisdictions, and we cannot yet determine the impact such future laws, regulations and standards will have on our business or the businesses of our customers, including, but not limited to, the European Union's recently enacted General Data Protection Regulation, which came into force in May 2018 and creates a range of new compliance obligations, which could require us to change our business practices, and significantly increases financial penalties for noncompliance.

Failure to comply with laws concerning privacy, data protection and information security could result in enforcement action against us, including fines, imprisonment of company officials and public censure, claims for damages by customers, End Users and other affected individuals, damage to our reputation and loss of goodwill (both in relation to existing customers and End Users and prospective customers and End Users), any of which could have a material adverse effect on our operations, financial performance and business. In addition, we could suffer adverse publicity and loss of customer confidence were it known that we did not take adequate measures to assure the confidentiality of the personally identifiable information that our customers had given to us. This could result in a loss of customers and revenue that could jeopardize our success. We may not be successful in avoiding potential liability or disruption of business resulting from the failure to comply with these laws and, even if we comply with laws, may be subject to liability because of a security incident. If we were required to pay any significant amount of money in satisfaction of claims under these laws, or any similar laws enacted by other jurisdictions, or if we were forced to cease our business operations for any length of time as a result of our inability to comply fully with any of these laws, our business, operating results and financial condition could be adversely affected. Further, complying with the applicable notice requirements in the event of a security breach could result in significant costs.

Additionally, our business efficiencies and economies of scale depend on generally uniform solutions offerings and uniform treatment of customers and their End Users across all jurisdictions in which we operate. Compliance requirements that vary significantly from jurisdiction to jurisdiction impose added costs on our business and can increase liability for compliance deficiencies.

***If our or our customers' security measures are compromised or unauthorized access to customer data is otherwise obtained, our solutions may not be secure or may be perceived as not being secure, and customers may curtail or cease their use of our solutions, our reputation may be harmed, and we may incur significant liabilities.***

Our operations involve access to and transmission of proprietary information and data and transaction and account details of our customers and their End Users. Our security measures and the security measures of our customers may not be sufficient to prevent our systems from being compromised as a result of third-party action, the error or intentional misconduct of employees, customers or their End Users, malfeasance or stolen or fraudulently obtained log-in credentials. Security incidents can result in unauthorized access to, loss of or unauthorized disclosure of this information, litigation, indemnity obligations and other possible liabilities, as well as negative publicity, which could damage our reputation, impair our sales and harm our business. Cyber-attacks, account take-over attacks, fraudulent representations and other malicious Internet-based activity continue to increase and financial services providers, their End Users, and technology providers are often targets of such attacks. In addition, third parties may attempt to fraudulently induce employees or customers into disclosing sensitive information such as user names, passwords or other information to gain access to our confidential or proprietary information or the data of our customers and their End Users. A party who is able to compromise the security of our facilities could cause interruptions or malfunctions in our operations. We may be unable to anticipate or prevent techniques used to obtain unauthorized access or sabotage systems because they change frequently and generally are not detected until after an incident has occurred. As we increase our customer base and our brand becomes more widely known and recognized, we may become more of a target for third parties seeking to compromise our security systems or gain unauthorized access to the data of our customers and their End Users. A failure or inability to meet our customers' expectations with respect to security and confidentiality could seriously damage our reputation and affect our ability to retain customers and attract new business.

Federal, state and other regulations may require us to notify customers and their End Users of data security incidents involving certain types of personal data. Security compromises experienced by our competitors, by our customers or by us may lead to public disclosures and widespread negative publicity. Any security compromise in our industry, whether actual or perceived, could erode customer confidence in the effectiveness of our security measures, negatively impact our ability to attract new customers, cause existing customers to elect not to renew their subscriptions or subject us to third-party lawsuits, regulatory fines or other action or liability, which could materially and adversely affect our business and operating results.

In addition, some of our customers contractually require notification of any data security compromise and include representations and warranties that our solutions comply with certain regulations related to data security and privacy. Although our customer agreements typically include limitations on our potential liability, there can be no assurance that such limitations of liability would be enforceable or adequate or would otherwise protect us from any such liabilities or damages with respect to any particular claim. We also cannot be sure that our existing general liability insurance coverage and coverage for errors or omissions will continue to be available on acceptable terms or will be available in sufficient amounts to cover one or more claims, or that our insurers will not deny or attempt to deny coverage as to any future claim. The successful assertion of one or more claims against us, the inadequacy of or denial of coverage under our insurance policies, litigation to pursue claims under our policies or the occurrence of changes in our insurance policies, including premium increases or the imposition of large deductible or co-insurance requirements, could have a material adverse effect on our business, financial condition and results of operations.

***We may experience quarterly fluctuations in our operating results due to a number of factors, which makes our future results difficult to predict and could cause our operating results to fall below expectations or our guidance.***

Our quarterly operating results have fluctuated in the past and are expected to fluctuate in the future due to a variety of factors, many of which are outside of our control. As a result, comparing our operating results on a period-to-period basis may not be meaningful. Our past results may not be indicative of our future performance. In addition to the other risks described in this report, factors that may affect our quarterly operating results include the following:

- the addition or loss of customers, including through acquisitions, consolidations or failures;
- the amount of use of our solutions in a period and the amount of any associated revenues and expenses;
- budgeting cycles of our customers and changes in spending on solutions by our current or prospective customers;
- seasonal variations in sales of our solutions, which may be lowest in the first quarter of the calendar year;
- changes in the competitive dynamics of our industry, including consolidation among competitors, changes to pricing or the introduction of new products and services that limit demand for our solutions or cause customers to delay purchasing decisions;
- the amount and timing of cash collections from our customers;
- long or delayed implementation times for new customers, including larger customers, or other changes in the levels of customer support we provide;
- the timing of customer payments and payment defaults by customers, including any buyouts by customers of the remaining term of their contracts with us in a lump sum payment that we would have otherwise recognized over the term of those contracts, and any costs associated with impairments of related contract assets;
- the amount and timing of our operating costs and capital expenditures;
- changes in tax rules or the impact of new accounting pronouncements, including the effects of our adoption of newly issued accounting standards regarding revenue recognition;
- general economic conditions that may adversely affect our customers' ability or willingness to purchase solutions, delay a prospective customer's purchasing decision, reduce our revenues from customers or affect renewal rates;
- unexpected expenses such as those related to litigation or other disputes;
- the timing of stock awards to employees and related adverse financial statement impact of having to expense those stock awards over their vesting schedules; and
- the amount and timing of costs associated with recruiting, hiring, training and integrating new employees, many of whom we hire in advance of anticipated needs.

Moreover, the price of the notes and our common stock might be based on expectations of investors or securities analysts of future performance that are inconsistent with our actual growth opportunities or that we might fail to meet and, if our revenues or operating results fall below expectations, the price of our notes and common stock could decline substantially.

***We have a history of losses, and we do not expect to be profitable for the foreseeable future.***

We have incurred losses from operations in each period since our inception in 2005, except for 2010 when we recognized a gain on the sale of a subsidiary. We incurred net losses of $35.4 million, $26.2 million and $36.4 million for the years ended December 31, 2018, 2017 and 2016, respectively. As of June 30, 2019, we had an accumulated deficit of $209.1 million. These losses and accumulated deficit reflect the substantial investments we have made to develop our solutions and acquire customers. As we seek to continue to grow our number of customers, including through acquisitions, we expect to incur significant sales, marketing, implementation and other related expenses, including amortization of acquired intangibles. Our ability to achieve or sustain profitability will depend on our obtaining sufficient scale and productivity so that the cost of adding and supporting new customers does not adversely impact our margins. We also expect to make other significant expenditures to develop and expand our solutions and our business, including continuing to increase our marketing, services and sales operations and continuing our significant investment in research and development and our technical infrastructure. We expect to incur losses for the foreseeable future as we continue to focus on adding new customers and solutions, and we cannot predict whether or when we will achieve or sustain profitability. Our efforts to grow our business may be more costly than we expect, and we may not be able to increase our revenues enough to offset our higher operating expenses. In addition, as a public company, we incur significant legal, accounting and other expenses. These increased expenditures will make it harder for us to achieve and maintain profitability. While our revenues have grown in recent periods, such growth may not be sustainable, and our revenues could decline or grow more slowly than we expect. We also may incur additional losses in the future for a number of reasons, including due to litigation and other unforeseen reasons and the risks described in this report. Accordingly, we cannot assure you that we will achieve profitability in the future, nor that, if we do become profitable, we will be able to sustain profitability. If we are unable to achieve and sustain profitability, our customers may lose confidence in us and slow or cease their purchases of our solutions and we may be unable to attract new customers, which would adversely impact our operating results.

***Our sales cycle can be unpredictable, time-consuming and costly, which could harm our business and operating results.***

Our sales process involves educating prospective customers and existing customers about the use, technical capabilities and benefits of our solutions. Prospective customers, especially larger financial services providers, often undertake a prolonged evaluation process, which typically involves not only our solutions, but also those of our competitors and lasts from six to nine months or longer. We may spend substantial time, effort and money on our sales and marketing efforts without any assurance that our efforts will produce any sales. It is also difficult to predict the level and timing of sales opportunities that come from our referral partners.

Events affecting our customers' businesses may occur during the sales cycle that could affect the size or timing of a purchase, contributing to more unpredictability in our business and operating results. As a result of these factors, we may face greater costs, longer sales cycles and less predictability in the future.

***We do not have an adequate history with our subscription or pricing models to accurately predict the long-term rate of customer subscription renewals or adoption, or the impact these renewals and adoption, or any customer terminations, will have on our revenues or operating results.***

We have limited experience with respect to determining the optimal prices for our solutions. As the markets for our existing solutions develop, we may be unable to attract new customers at the same price or based on the same pricing model as we have used historically. Moreover, large or influential financial services providers may demand more favorable pricing or other contract terms, including termination rights. As a result, in the future we may be required to reduce our prices or accept other unfavorable contract terms, each of which could adversely affect our revenues, gross margin, profitability, financial position and cash flow.

Our customers have no obligation to renew their subscriptions for our solutions after the expiration of the initial subscription term, and if our customers renew at all, then our customers may renew for fewer solutions or on different pricing terms. Our renewal rates may decline or fluctuate as a result of a number of factors, including our customers' satisfaction with our pricing or our solutions or their ability to continue their operations and spending levels. Additionally, certain agreements may include termination rights allowing customers to terminate their customer agreements in the event of, among other things, defects with our solutions, changes in our solution, breach by us of our obligations, requirements from regulatory authorities or a change in control of our company. If our customers terminate or do not renew their subscriptions for our solutions on similar pricing terms, our revenues may decline and our business could suffer. As we create new solutions or enhance our existing solutions to support new technologies and devices, our pricing of these solutions and related services may be unattractive to customers or fail to cover our costs.

***Defects or errors in our solutions could harm our reputation, result in significant costs to us, impair our ability to sell our solutions and subject us to substantial liability.***

Our solutions are inherently complex and may contain defects or errors, particularly when first introduced or as new versions are released. Despite extensive testing, from time-to-time we have discovered defects or errors in our solutions. In addition, due to changes in regulatory requirements relating to our customers or to technology providers to financial services providers like us, we may discover deficiencies in our software processes related to those requirements. Material performance problems or defects in our solutions might arise in the future.

Any such errors, defects, other performance problems or disruptions in service to provide bug fixes or upgrades, whether in connection with day-to-day operations or otherwise, could be costly for us to remedy, damage our customers' businesses and harm our reputation. In addition, if we have any such errors, defects or other performance problems, our customers could seek to terminate their agreements, elect not to renew their subscriptions, delay or withhold payment or make claims against us. Any of these actions could result in lost business, increased insurance costs, difficulty in collecting our accounts receivable, costly litigation and adverse publicity. Such errors, defects or other problems could also result in reduced sales or a loss of, or delay in, the market acceptance of our solutions.

Moreover, software development is time-consuming, expensive, complex and requires regular maintenance. Unforeseen difficulties can arise. If we do not complete our periodic maintenance according to schedule or if customers are otherwise dissatisfied with the frequency or duration of our maintenance services, customers could elect not to renew, or delay or withhold payment to us or cause us to issue credits, make refunds or pay penalties. Because our solutions are often customized and deployed on a customer-by-customer basis, rather than through a multi-tenant SaaS method of distribution, applying bug fixes, upgrades or other maintenance services may require updating each instance of our software, which could be time consuming and cause us to incur significant expense. We might also encounter technical obstacles, and it is possible that we discover problems that prevent our solutions from operating properly. If our solutions do not function reliably or fail to achieve customer expectations in terms of performance, customers could seek to cancel their agreements with us and assert liability claims against us, which could damage our reputation, impair our ability to attract or maintain customers and harm our results of operations.

***Failures or reduced accessibility of third-party hardware or software on which we rely could impair the delivery of our solutions and adversely affect our business.***

We rely on hardware that we purchase or lease and software that we develop or license from, or that is hosted by third parties, to offer our solutions. In addition, we obtain licenses from third parties to use intellectual property associated with the development of our solutions. These licenses might not continue to be available to us on acceptable terms, or at all. While we are not substantially dependent upon any third-party hardware or software, the loss of the right to use all or a significant portion of our third-party hardware or software required for the development, maintenance and delivery of our solutions could result in delays in the provision of our solutions until we develop or identify, obtain and integrate equivalent technology, which could harm our business.

Any errors or defects in the hardware or software we use could result in errors, interruptions or a failure of our solutions. Although we believe that there are alternatives, any significant interruption in the availability of all or a significant portion of such hardware or software could have an adverse impact on our business unless and until we can replace the functionality provided by these products at a similar cost. Furthermore, this hardware and software may not be available on commercially reasonable terms, or at all. The loss of the right to use all or a significant portion of this hardware or software could limit access to our solutions. Additionally, we rely upon third parties' abilities to enhance their current products, develop new products on a timely and cost-effective basis and respond to emerging industry standards and other technological changes. We may be unable to effect changes to such third-party technologies, which may prevent us from rapidly responding to evolving customer requirements. We also may be unable to replace the functionality provided by the third-party software currently offered in conjunction with our solutions in the event that such software becomes obsolete or incompatible with future versions of our solutions or is otherwise not adequately maintained or updated.

***We depend on data centers operated by third parties and third-party Internet hosting providers, and any disruption in the operation of these facilities or access to the Internet could adversely affect our business.***

We currently host our digital banking platform solutions primarily from two third-party data center hosting facilities located in Austin, Texas and Carrollton, Texas and certain of our lending and leasing and BaaS solutions are hosted by cloud-based providers, including Amazon Web Services and Microsoft Azure. The owners and operators of these current and future facilities and cloud-based hosting services do not guarantee that our customers' access to our solutions will be uninterrupted, error-free or secure. We may experience website disruptions, outages and other performance problems. These problems may be caused by a variety of factors, including infrastructure changes, human or software errors, viruses, security attacks, fraud, spikes in customer usage and denial of service issues. In some instances, we may not be able to identify the cause or causes of these performance problems within an acceptable period of time. We do not control the operation of these data center facilities and cloud-based services, and such facilities and services are vulnerable to damage or interruption from human error, intentional bad acts, power loss, hardware failures, telecommunications failures, fires, wars, terrorist attacks, floods, earthquakes, hurricanes, tornadoes or similar catastrophic events. They also could be subject to break-ins, computer viruses, sabotage, intentional acts of vandalism and other misconduct. The occurrence of a natural disaster or an act of terrorism, a decision to close the facilities without adequate notice or terminate our hosting arrangement or other unanticipated problems could result in lengthy interruptions in the delivery of our solutions, cause system interruptions, prevent our customers' End Users from accessing their accounts or services online, reputational harm and loss of critical data, prevent us from supporting our solutions or cause us to incur additional expense in arranging for new facilities, services and support.

We also depend on third-party Internet-hosting providers and continuous and uninterrupted access to the Internet through third-party bandwidth providers to operate our business. If we lose the services of one or more of our Internet-hosting or bandwidth providers for any reason or if their services are disrupted, for example due to viruses or denial of service or other attacks on their systems, or due to human error, intentional bad acts, power loss, hardware failures, telecommunications failures, fires, wars, terrorist attacks, floods, earthquakes, hurricanes, tornadoes or similar catastrophic events, we could experience disruption in our ability to offer our solutions and adverse perception of our solutions' reliability, or we could be required to retain the services of replacement providers, which could increase our operating costs and harm our business and reputation.

***We do not have any control over the availability or performance of salesforce.com's Force.com platform, and if we or our digital lending and leasing solution customers encounter problems with it, we may be required to replace Force.com with another platform, which would be difficult and costly.***

Our digital lending and leasing solutions run on salesforce.com's Force.com platform, and we do not have any control over the Force.com platform or the prices salesforce.com charges to our customers. Salesforce.com may discontinue or modify Force.com or increase its fees or modify its pricing incentives for our customers. If salesforce.com takes any of these actions, we may suffer lower sales, increased operating costs and loss of revenue from our digital lending and leasing solutions until equivalent technology is either developed by us, or, if available from a third party, is identified, obtained and integrated. Additionally, we may not be able to honor commitments we have made to our customers and we may be subject to breach of contract or other claims from our customers.

In addition, we do not control the performance of Force.com. If Force.com experiences an outage, our digital lending and leasing solutions will not function properly, and our customers may be dissatisfied. If salesforce.com has performance or other problems with its Force.com platform, they will reflect poorly on us and the adoption and renewal of our digital lending and leasing solutions and our business may be harmed.

***We derive substantially all of our revenues from customers in the financial services industry, and any downturn or consolidation in the financial services industry, or unfavorable economic conditions affecting regions in which a significant portion of our customers are concentrated, could harm our business.***

Substantially all of our revenues are derived from RCFIs. RCFIs have experienced significant pressure in recent years due to economic uncertainty, liquidity concerns and increased regulation. In recent years, many RCFIs have failed, merged or been acquired. Failures and consolidations are likely to continue, and there are very few new RCFIs being created. Further, if our customers merge with or are acquired by other entities such as financial institutions that have in-house developed digital banking solutions or that are not our customers or use fewer of our solutions, our customers may discontinue, reduce or change the terms of their use of our solutions. It is also possible that the larger RCFIs that result from mergers or consolidations could have greater leverage in negotiating terms with us or could decide to replace some or all of our solutions. Any of these developments could have an adverse effect on our business, results of operations and financial condition.

In addition, any downturn in the financial services industry or unfavorable economic conditions affecting the regions in which our customers are concentrated may cause our customers to reduce their spending on solutions such as ours, seek to terminate or renegotiate their contracts with us or fail. A significant portion of our revenues is derived from RCFIs in states, in particular Texas, whose economies are substantially dependent upon the energy and natural resources market, in particular oil and gas exploration and production. Since 2014, the price of oil and gas has remained low resulting in economic uncertainty in Texas and such other states. Should the price of oil and gas decline further or remain at the current low price for an extended period, the general economic conditions in Texas and such other states could be negatively affected, which could have a material adverse effect on our RCFI customers, and accordingly our business, results of operations, and financial condition.

***Because we recognize revenues from our solutions over the terms of our customer agreements, the impact of changes in the subscriptions for our solutions will not be immediately reflected in our operating results, and rapid growth in our customer base may adversely affect our operating results in the short term since we expense a substantial portion of implementation costs as incurred.***

We generally recognize revenues monthly over the terms of our customer agreements. The initial term of our digital banking platform customer agreements averages over five years, although it varies by customer. As a result, the substantial majority of the revenues we report in each quarter are related to agreements entered into during previous quarters. Consequently, a change in the level of new customer agreements or implementations in any quarter may have a small impact on our revenues in that quarter but will affect our revenues in future quarters. Accordingly, the effect of significant downturns in sales and market acceptance of our solutions, or changes in our rate of renewals may not be fully reflected in our results of operations until future periods. Our subscription model also makes it difficult for us to rapidly increase our revenues through additional sales in any period.

Additionally, we recognize our expenses over varying periods based on the nature of the expense. In particular, we recognize a substantial portion of implementation expenses as incurred even though we recognize the related revenues over extended periods. As a result, we may report poor operating results in periods in which we are incurring higher implementation expenses related to revenues that we will recognize in future periods, including implementations for larger customers that have heightened levels of complexity in their hardware, software and network infrastructure needs. Alternatively, we may report better operating results in periods due to lower implementation expenses, but such lower expenses may be indicative of slower revenue growth in future periods. As a result, our expenses may fluctuate as a percentage of revenues and changes in our business generally may not be immediately reflected in our results of operations.

***As the number, size, type and complexity of customers that we serve increase and change, we may encounter implementation challenges, and we may have to delay revenue recognition for some complex engagements, which would harm our business and operating results.***

We may face unexpected implementation challenges related to the complexity of our customers' implementation and integration requirements, particularly implementations for larger customers that have heightened levels of complexity in their hardware, software and network infrastructure needs. Our implementation expenses increase when customers have unexpected data, hardware or software technology challenges, or complex or unanticipated business or regulatory requirements. In addition, our customers typically require complex acceptance testing related to the implementation of our solutions. Implementation delays may also require us to delay revenue recognition under the related customer agreement longer than expected. Further, because we do not fully control our customers' implementation schedules, if our customers do not allocate the internal resources necessary to meet implementation timelines or if there are unanticipated implementation delays or difficulties, our revenue recognition may be delayed. Losses of End Users or any difficulties or delays in implementation processes could cause customers to delay or forgo future purchases of our solutions, which would adversely affect our business, operating results and financial condition.

***Shifts over time in the number of End Users of our solutions, their use of our solutions and our customers' implementation and customer support needs could negatively affect our profit margins.***

Our profit margins can vary depending on numerous factors, including the scope and complexity of our implementation efforts, the number of End Users on our solutions, the frequency and volume of their use of our solutions and the level of customer support services required by our customers. For example, our services offerings typically have a much higher cost of revenues than subscriptions to our solutions, so any increase in sales of services as a proportion of our subscriptions would have an adverse effect on our overall gross margin and operating results. If we are unable to increase the number of End Users and the number of transactions they perform on our solutions, the types of customers that purchase our solutions changes, or the mix of solutions purchased by our customers changes, our profit margins could decrease and our operating results could be adversely affected.

***If we fail to provide effective customer training on our solutions and high-quality customer support, our business and reputation would suffer.***

Effective customer training on our solutions and high-quality, ongoing customer support are important to the successful marketing and sale of our solutions and for the renewal of existing customer agreements. Providing this training and support requires that our customer training and support personnel have financial services knowledge and expertise, making it difficult for us to hire qualified personnel and scale our training and support operations. The demand on our customer support organization will increase as we expand our business and pursue new customers, and such increased support could require us to devote significant development services and support personnel, which could strain our team and infrastructure and reduce our profit margins. If we do not help our customers quickly resolve any post-implementation issues and provide effective ongoing customer support, our ability to sell additional solutions to existing and future customers could suffer and our reputation would be harmed.

***If we fail to respond to evolving technological requirements or introduce adequate enhancements, new features or solutions, our solutions could become obsolete or less competitive.***

The markets for our solutions are characterized by rapid technological advancements, changes in customer requirements and technologies, frequent new product introductions and enhancements and changing regulatory requirements. The life cycles of our solutions are difficult to estimate. Rapid technological changes and the introduction of new products and enhancements by new or existing competitors or large financial services providers could undermine our current market position. Other means of digital financial services solutions may be developed or adopted in the future, and our solutions may not be compatible with these new technologies. In addition, the technological needs of, and services provided by, customers may change if they or their competitors offer new services to End Users. Maintaining adequate research and development resources to meet the demands of the markets we serve is essential. The process of developing new technologies and solutions is complex and expensive. The introduction of new solutions by our competitors, the market acceptance of competitive solutions based on new or alternative technologies or the emergence of new technologies or solutions in the broader financial services industry could render our solutions obsolete or less effective.

The success of any enhanced or new solution depends on several factors, including timely completion, adequate testing and market release and acceptance of the solution. Any new solutions that we develop or acquire may not be introduced in a timely or cost-effective manner, may contain defects or may not achieve the broad market acceptance necessary to generate significant revenues. If we are unable to anticipate customer requirements or work with our customers successfully on implementing new solutions or features in a timely manner or enhance our existing solutions to meet our customers' requirements, our business and operating results may be adversely affected.

***If we fail to effectively expand our sales and marketing capabilities and teams, including through partner relationships, we may not be able to increase our customer base and achieve broader market acceptance of our solutions.***

Increasing our customer base and achieving broader market acceptance of our solutions will depend on our ability to expand our sales and marketing organizations and their abilities to obtain new customers and sell additional solutions and services to new and existing customers. We believe there is significant competition for direct sales professionals with the skills and knowledge that we require, and we may be unable to hire or retain sufficient numbers of qualified individuals in the future. Our ability to achieve significant future revenue growth will depend on our success in recruiting, training and retaining a sufficient number of direct sales professionals. New hires require significant training and time before they become fully productive and may not become as productive as quickly as we anticipate. As a result, the cost of hiring and carrying new representatives cannot be offset by the revenues they produce for a significant period of time. Our growth prospects will be harmed if our efforts to expand, train and retain our direct sales team do not generate a corresponding significant increase in revenues. Additionally, if we fail to sufficiently invest in our marketing programs or they are unsuccessful in creating market awareness of our company and solutions, our business may be harmed and our sales opportunities limited.

In addition to our direct sales team, we also extend our sales distribution through formal and informal relationships with referral partners. While we are not substantially dependent upon referrals from any partner, our ability to achieve significant revenue growth in the future will depend upon continued referrals from our partners and growth of the network of our referral partners. These partners are under no contractual obligation to continue to refer business to us, nor do these partners have exclusive relationships with us and may choose to instead refer potential customers to our competitors. We cannot be certain that these partners will prioritize or provide adequate resources for promoting our solutions or that we will be successful in maintaining, expanding or developing our relationships with referral partners. Our competitors may be effective in providing incentives to third parties, including our partners, to favor their solutions or prevent or reduce subscriptions to our solutions either by disrupting our relationships with existing customers or limiting our ability to win new customers. Establishing and retaining qualified partners and training them with respect to our solutions requires significant time and resources. If we are unable to devote sufficient time and resources to establish and train these partners, or if we are unable to maintain successful relationships with them, we may lose sales opportunities and our revenues could suffer.

***We rely on our management team and other key employees, and the loss of one or more key employees could harm our business.***

Our success and future growth depend upon the continued services of our management team, in particular our Chief Executive Officer, and other key employees, including in the areas of research and development, marketing, sales, services and general and administrative functions. From time to time, there may be changes in our management team resulting from the hiring or departure of executives, which could disrupt our business. We also are dependent on the continued service of our existing development professionals because of the complexity of our solutions, including complexity arising as a result of the regulatory requirements that are applicable to our customers and the pace of technology changes impacting our customers and their End Users. We may terminate any employee's employment at any time, with or without cause, and any employee may resign at any time, with or without cause; however, our employment agreements with our named executive officers provide for the payment of severance under certain circumstances. We have also entered into employment agreements with our other executive officers which provide for the payment of severance under similar circumstances as in our named executive officers' employment agreements. The loss of one or more of our key employees could harm our business.

***Because competition for key employees is intense, we may not be able to attract and retain the highly-skilled employees we need to support our operations and future growth.***

Competition for executive officers, software developers and other key employees in our industry is intense. In particular, we compete with many other companies for executive officers, for software developers with high levels of experience in designing, developing and managing software, as well as for skilled sales and operations professionals and knowledgeable customer support professionals, and we may not be successful in attracting the professionals we need. Competition for software development and engineering personnel is intense. We may have difficulty hiring and retaining suitably skilled personnel or expanding our research and development organization. In addition, job candidates and existing employees often consider the actual and potential value of the equity awards they receive as part of their overall compensation. Thus, if the perceived value or future value of our stock declines, our ability to attract and retain highly skilled employees may be adversely affected. In addition, many of our existing employees may exercise vested options or vest in outstanding restricted stock units and sell our stock, which may make it more difficult for us to retain key employees. If we fail to attract and retain new employees, our business and future growth prospects could be harmed.

***Our failure to comply with laws and regulations related to the Internet and mobile usage could adversely affect our business and results of operations, increase costs and impose constraints on the way we conduct our business.***

We and our customers are subject to laws and regulations applicable to doing business over the Internet and through the use of mobile devices. It is often not clear how existing laws governing issues such as property ownership, sales and other taxes apply to the Internet and mobile usage, as these laws have in some cases failed to keep pace with technological change. Laws governing the Internet could also impact our business or the business of our customers. For instance, existing and future regulations on taxing Internet use, pricing, characterizing the types and quality of services and products, or restricting the exchange of information over the Internet or mobile devices could result in reduced growth of our business, a general decline in the use of the Internet by financial services providers, or their End Users, or diminished viability of our solutions and could significantly restrict our customers' ability to use our solutions. Changing laws and regulations, industry standards and industry self-regulation regarding the collection, use and disclosure of certain data may have similar effects on our and our customers' businesses. Any such constraint on the growth in Internet and mobile usage could decrease its acceptance as a medium of communication and commerce or result in increased adoption of new modes of communication and commerce that may not be supported by our solutions. Any such adverse legal or regulatory developments could substantially harm our operating results and our business.

***Legislation relating to consumer privacy may affect our ability to collect data that we use in providing our customers' End User information, which, among other things, could negatively affect our ability to satisfy our customers' needs.***

We collect and store personal and identifying information regarding our customers' End Users to enable certain functionality of our solutions and provide our customers with data about their End Users. The enactment of new or amended legislation or industry regulations pertaining to consumer or private sector privacy issues could have a material adverse impact on our collection, storage and sharing of such information. Legislation or industry regulations regarding consumer or private sector privacy issues could place restrictions upon the collection, sharing and use of information that is currently legally available, which could materially increase our cost of collecting some data. These types of legislation or industry regulations could also prohibit us from collecting or disseminating certain types of data, which could adversely affect our ability to meet our customers' requirements and our profitability and cash flow targets. While every state, the District of Columbia and the FFIEC have enacted data breach notification laws or requirements, there is no such federal law generally applicable to our businesses. These legislative measures impose strict requirements on reporting time frames for providing notice, as well as the contents of such notices. The costs of compliance with, the inability to determine whether a data breach has occurred within the time frame provided by, and other burdens imposed by, such laws and regulations may lead to significant fines, penalties or liabilities for any noncompliance with such privacy laws. Even the perception of privacy concerns, whether or not valid, may inhibit market adoption of our solutions.

In addition to government activity, privacy advocacy groups and the technology and other industries are considering various new, additional or different self-regulatory standards that may place additional burdens on us. If the collecting, storing and processing of personal information were to be curtailed, our solutions would be less effective, which may reduce demand for our solutions and adversely affect our business.

***Any use of our solutions by our customers in violation of regulatory requirements could damage our reputation and subject us to additional liability.***

If our customers or their End Users use our solutions in violation of regulatory requirements and applicable laws, we could suffer damage to our reputation and could become subject to claims. We rely on contractual obligations made to us by our customers that their use and their End Users' use of our solutions will comply with applicable laws. However, we do not audit our customers or their End Users to confirm compliance. We may become subject to or involved with claims for violations by our customers or their End Users of applicable laws in connection with their use of our solutions. Even if claims asserted against us do not result in liability, we may incur costs in investigating and defending against such claims. If we are found liable in connection with our customers' or their End Users' activities, we could incur liabilities and be required to redesign our solutions or otherwise expend resources to remedy any damages caused by such actions and to avoid future liability.

***Any future litigation against us could be costly and time-consuming to defend.***

We may become subject, from time to time, to legal proceedings and claims that arise in the ordinary course of business such as claims brought by our customers in connection with commercial disputes or employment claims made by our current or former employees. Litigation might result in substantial costs and may divert management's attention and resources, which might seriously harm our business, overall financial condition and operating results. Insurance might not cover such claims, might not provide sufficient payments to cover all the costs to resolve one or more such claims and might not continue to be available on terms acceptable to us. A claim brought against us that is uninsured or underinsured could result in unanticipated costs, thereby reducing our operating results and leading analysts or potential investors to reduce their expectations of our performance, which could reduce the trading price of our stock.

***Lawsuits by third parties against us and our customers for alleged infringement of the third parties' proprietary rights or for other intellectual property related claims could result in significant expenses and harm our operating results.***

Our industry is characterized by the existence of a large number of patents, copyrights, trademarks, trade secrets and other intellectual property and proprietary rights. Companies in our industry are often required to defend against litigation claims based on allegations of infringement or other violations of intellectual property rights. Furthermore, our customer agreements typically require us to indemnify our customers against liabilities incurred in connection with claims alleging our solutions infringe the intellectual property rights of a third party. From time to time, we have been involved in disputes related to patent and other intellectual property rights of third parties, none of which have resulted in material liabilities. We expect these types of disputes to continue to arise in the future. Our business could be adversely affected by any significant disputes between us and our customers as to the applicability or scope of our indemnification obligations to them. There can be no assurances that any existing limitations of liability provisions in our contracts would be enforceable or adequate, or would otherwise protect us from any such liabilities or damages with respect to any particular claim. If such claims are successful, or if we are required to indemnify or defend our customers from these or other claims, these matters could be disruptive to our business and management and have an adverse effect on our business, operating results and financial condition.

Furthermore, our technologies may not be able to withstand any third-party claims or rights against their use. As a result, our success depends upon our not infringing upon the intellectual property rights of others. Our competitors, as well as a number of other entities and individuals, may own or claim to own intellectual property relating to our industry. We have a very limited patent portfolio, which will likely prevent us from deterring patent infringement claims, and our competitors and others may now and in the future have significantly larger patent portfolios than we have. From time to time, we have received and may continue to receive threatening letters or notices or in the future may be the subject of claims that our solutions and underlying technology infringe or violate the intellectual property rights of others, and we may be found to be infringing upon such rights. The risk of patent litigation has been amplified by the increase in the number of non-practicing patent asserting entities, or patent trolls. Any claims or litigation could cause us to incur significant expenses and, if successfully asserted against us or our customers whom we indemnify, could require that we pay substantial damages or ongoing royalty payments, prevent us from offering our solutions or require that we comply with other unfavorable terms. Even if the claims do not result in litigation or are resolved in our favor, these claims and the time and resources necessary to resolve them, could divert the resources of our management and harm our business and operating results.

The frequency of these types of claims may increase as we continue to add new customers and as a result of our being a public company.

***If we are unable to protect our intellectual property, our business could be adversely affected.***

Our success depends upon our ability to protect our intellectual property, which may require us to incur significant costs. We have developed much of our intellectual property internally, and we rely on a combination of confidentiality obligations in contracts, patents, copyrights, trademarks, service marks, trade secret laws and other contractual restrictions to establish and protect our intellectual property and other proprietary rights. In particular, we enter into confidentiality and invention assignment agreements with our employees and consultants and enter into confidentiality agreements with the parties with whom we have business relationships in which they will have access to our confidential information. We also rely upon licenses to intellectual property from third parties. No assurance can be given that these agreements or other steps we take to protect our intellectual property or the third-party intellectual property used in our solutions will be effective in controlling access to and distribution of our solutions and our confidential and proprietary information. We will not be able to protect our intellectual property if we are unable to enforce our rights or if we do not detect unauthorized uses of our intellectual property.

Despite our precautions, it may be possible for third parties to copy our solutions and use information that we regard as proprietary to create solutions and services that compete with ours. Third parties may also independently develop technologies that are substantially equivalent to our solutions. Some license provisions protecting against unauthorized use, copying, transfer and disclosure of our solutions may be unenforceable under the laws of certain jurisdictions.

In some cases, litigation may be necessary to enforce our intellectual property rights or to protect our trade secrets. Litigation could be costly, time consuming and distracting to management and could result in the impairment or loss of portions of our intellectual property. Furthermore, our efforts to enforce our intellectual property rights may be met with defenses, counterclaims and countersuits attacking the validity and enforceability of our intellectual property rights and exposing us to significant damages or injunctions. Our inability to protect our intellectual property against unauthorized copying or use, as well as any costly litigation or diversion of our management's attention and resources, could delay sales or the implementation of our solutions, impair the functionality of our solutions, delay introductions of new solutions, result in our substituting less-advanced or more-costly technologies into our solutions or harm our reputation. In addition, we may be required to license additional intellectual property from third parties to develop and market new solutions, and we cannot assure you that we could license that intellectual property on commercially reasonable terms or at all.

As of June 30, 2019, we had two U.S. patent applications pending and 11 issued U.S. patents. We do not know whether our pending patent applications will result in the issuance of patents or whether the examination process will require us to narrow the scope of our claims. To the extent that our pending patent applications or any portion of such applications proceed to issuance as a patent, any such future patent may be opposed, contested, circumvented, designed around by a third party or found to be invalid or unenforceable. In addition, our existing and any future issued patents may be opposed, contested, circumvented, designed around by a third party or found to be invalid or unenforceable. The process of seeking patent protection can be lengthy and expensive. We rely on a combination of patent, copyright, trade secret, trademark and other intellectual property laws to protect our intellectual property, and much of our technology is not covered by any patent or patent application.

***We use "open source" software in our solutions, which may restrict how we use or distribute our solutions, require that we release the source code of certain software subject to open source licenses or subject us to litigation or other actions that could adversely affect our business.***

We currently use in our solutions, and may use in the future, software that is licensed under "open source," "free" or other similar licenses where the licensed software is made available to the general public on an "as-is" basis under the terms of a specific non-negotiable license. Some open source software licenses require that software subject to the license be made available to the public and that any modifications or derivative works based on the open source code be licensed in source code form under the same open source licenses. Although we monitor our use of open source software, we cannot assure you that all open source software is reviewed prior to use in our solutions, that our programmers have not incorporated open source software into our solutions, or that they will not do so in the future. In addition, some of our products may incorporate third-party software under commercial licenses. We cannot be certain whether such third-party software incorporates open source software without our knowledge. In the past, companies that incorporate open source software into their products have faced claims alleging noncompliance with open source license terms or infringement or misappropriation of proprietary software. Therefore, we could be subject to suits by parties claiming noncompliance with open source licensing terms or infringement or misappropriation of proprietary software. Because few courts have interpreted open source licenses, the manner in which these licenses may be interpreted and enforced is subject to some uncertainty. There is a risk that open source software licenses could be construed in a manner that imposes unanticipated conditions or restrictions on our ability to market or provide our solutions. As a result of using open source software subject to such licenses, we could be required to release our proprietary source code, pay damages, re-engineer our products, limit or discontinue sales or take other remedial action, any of which could adversely affect our business.

***The market data and forecasts included in this report may prove to be inaccurate, and even if the markets in which we compete achieve the forecasted growth, we cannot assure you that our business will grow at similar rates, or at all.***

The market data and forecasts included in our Annual Report on Form 10-K for the year ended December 31, 2018 and our other filings with the SEC, including the data and forecasts published by BauerFinancial, Deloitte and Venture Scanner among others, and our internal estimates and research are subject to significant uncertainty and are based on assumptions and estimates that may not prove to be accurate. If the forecasts of market growth or anticipated spending prove to be inaccurate, our business and growth prospects could be adversely affected. Even if the forecasted growth occurs, our business may not grow at a similar rate, or at all. Our future growth is subject to many factors, including our ability to successfully implement our business strategy, which itself is subject to many risks and uncertainties. Such reports speak as of their respective publication dates and the opinions expressed in such reports are subject to change. Accordingly, potential investors in our common stock are urged not to put undue reliance on such forecasts and market data.

***Uncertain or weakened economic conditions may adversely affect our industry, business and results of operations.***

Our overall performance depends on economic conditions, which may remain challenging or uncertain for the foreseeable future. Financial developments seemingly unrelated to us or our industry may adversely affect us. Domestic and international economies have been impacted by threatened sovereign defaults and ratings downgrades, falling demand for a variety of goods and services, restricted credit, threats to major multinational companies, poor liquidity, reduced corporate profitability, volatility in credit, equity and foreign exchange markets, bankruptcies and overall uncertainty. These conditions affect the rate of technology spending and could adversely affect our customers' ability or willingness to purchase our solutions, delay prospective customers' purchasing decisions, reduce the value or duration of their subscriptions or affect renewal rates, any of which could adversely affect our operating results. We cannot predict the timing, strength or duration of the economic recovery or any subsequent economic slowdown in the U.S. or in our industry.

***We may not be able to utilize a significant portion of our net operating loss carryforwards, which could adversely affect our operating results and cash flows.***

As of December 31, 2018, we had approximately $276.9 million of U.S. federal net operating loss carryforwards. Utilization of these net operating loss carryforwards depends on many factors, including our future income, which cannot be assured. Our loss carryforwards begin to expire in 2026. In addition, Section 382 of the Internal Revenue Code generally imposes an annual limitation on the amount of net operating loss carryforwards that may be used to offset taxable income when a corporation has undergone an ownership change. An ownership change is generally defined as a greater than 50% change in equity ownership by value over a 3-year period. We have undergone one or more ownership changes as a result of prior financings, and may have undergone an ownership change as a result of our initial public offering in March 2014 or our registered common stock offerings in March 2015, September 2015 and June 2019, and any such change in ownership and the corresponding annual limitation may prevent us from using our current net operating losses prior to their expiration. In addition, our acquisition of the various businesses acquired since 2015 may result in an ownership change, and any such change in ownership may result in a corresponding annual limitation which may prevent us from being able to fully utilize the net operating losses we acquired prior to their expiration. Future ownership changes or future regulatory changes could further limit our ability to utilize our net operating loss carryforwards. To the extent we are not able to offset our future income against our net operating loss carryforwards, this would adversely affect our operating results and cash flows if we attain profitability.

***Our business may be subject to additional obligations to collect and remit sales tax and other taxes, and we may be subject to tax liability for past sales. Any successful action by state, local or other authorities to collect additional or past sales tax could adversely harm our business.***

We file sales tax returns in certain states within the U.S. as required by law and certain customer contracts for a portion of the solutions that we provide. Our sales tax liabilities with respect to sales and use taxes in various states and local jurisdictions were $0.8 million as of June 30, 2019. From time to time we face sales tax audits, and we will likely continue to do so in the future, and our liability for these taxes could exceed our estimates as state tax authorities could still assert that we are obligated to collect additional amounts as taxes from our customers and remit those taxes to those authorities.

We do not collect sales or other similar taxes in other states and many of the states do not apply sales or similar taxes to certain of our solutions. State and local taxing jurisdictions have differing rules and regulations governing sales and use taxes, and these rules and regulations are subject to varying interpretations that may change over time. In particular, the applicability of sales taxes to our solutions in various jurisdictions is unclear. We review these rules and regulations periodically and, when we believe we are subject to sales and use taxes in a particular state, we may voluntarily engage state tax authorities to determine how to comply with their rules and regulations. A successful assertion by one or more states, including states for which we have not accrued tax liability, requiring us to collect sales or other taxes with respect to sales of our solutions or customer support could result in substantial tax liabilities for past transactions, including interest and penalties, discourage customers from purchasing our solutions or otherwise harm our business and operating results.

***Changes in financial accounting standards or practices may cause adverse, unexpected financial reporting fluctuations and affect our reported results of operations.***

Financial accounting standards may change or their interpretation may change. A change in accounting standards or practices can have a significant effect on our reported results and may even affect our reporting of transactions completed before the change becomes effective. Changes to existing rules or the re-examining of current practices may adversely affect our reported financial results or the way we conduct our business. Accounting for revenues from sales of our solutions is particularly complex, is often the subject of intense scrutiny by the SEC and will evolve as the Financial Accounting Standards Board, or FASB, continues to consider applicable accounting standards in this area. In particular, in order to be able to comply and maintain compliance with the requirements of the new revenue recognition standard under Accounting Standards Codification, or ASC, 606, we have updated and enhanced our internal accounting systems and processes and our internal controls over financial reporting. This has required, and will continue to require, additional investments by us, and may require incremental resources and system configurations that could increase our operating costs in future periods. Further, as companies operate in compliance with ASC 606, its interpretation and application will likely evolve over time which could adversely impact our current and historical financial results and require further changes to our disclosures, internal systems and processes and internal controls.

***Because we operate our business internationally and sell our solutions to customers located outside of the United States, our business is susceptible to risks associated with international operations.***

We have operations in India, the United Kingdom, the Netherlands and Australia. We also expect to continue to expand our international operations. The continued international expansion of our operations requires significant management attention and financial resources and results in increased administrative and compliance costs. Our limited experience in operating our business outside the United States increases the risk that our expansion efforts into those regions may not be successful. In particular, our business model may not be successful in particular countries or regions outside the United States for reasons that we currently are unable to anticipate. In addition, conducting international operations subjects us to risks that we have not generally faced in the United States. These include, but are not limited to:

- fluctuations in currency exchange rates;
- the complexity of, or changes in, foreign regulatory requirements;
- the cost and complexity of bringing our solutions into compliance with foreign regulatory requirements, and risks of our solutions not being compliant;
- difficulties in managing the staffing of international operations, including compliance with local labor and employment laws and regulations;
- potentially adverse tax consequences, including the complexities of foreign value added tax systems, overlapping tax regimes, restrictions on the repatriation of earnings and changes in tax rates;
- dependence on resellers and distributors to increase customer acquisition or drive localization efforts;
- the burdens of complying with a wide variety of foreign laws and different legal standards;
- increased financial accounting and reporting burdens and complexities;
- longer payment cycles and difficulties in collecting accounts receivable;
- longer sales cycles;
- political, social and economic instability abroad;
- terrorist attacks and security concerns in general;
- integrating personnel with diverse business backgrounds and organizational cultures;
- difficulties entering new non-U.S. markets due to, among other things, consumer acceptance and business knowledge of these new markets;

- reduced or varied protection for intellectual property rights in some countries; and
- the risk of U.S. regulation of foreign operations.

The occurrence of any one of these risks could negatively affect our international business and, consequently, our operating results. We cannot be certain that the investment and additional resources required to establish, acquire or integrate operations in other countries will produce desired levels of revenue or profitability. If we are unable to effectively manage our expansion into additional geographic markets, our financial condition and results of operations could be harmed.

***We may acquire or invest in companies, or pursue business partnerships, which may divert our management's attention and present additional risks, and we may be unable to integrate acquired businesses and technologies successfully or achieve the expected benefits of such acquisitions or investments, all of which could have a material adverse effect on our business and results of operations.***

We have completed, and may in the future evaluate and consider, potential strategic transactions, including acquisitions of, or investments in, businesses, technologies, services, products and other assets. We also may enter into relationships with other businesses to expand our solutions, which could involve preferred or exclusive licenses, additional channels of distribution, discount pricing or investments in other companies. Negotiating these transactions can be time-consuming, difficult and expensive, and our ability to close these transactions may be subject to approvals that are beyond our control. In addition, we have limited experience in acquiring other businesses. We may not be able to find and identify desirable additional acquisition targets, we may incorrectly estimate the value of an acquisition target, and we may not be successful in entering into an agreement with any particular target. Consequently, these transactions, even if undertaken and announced, may not close.

We may not achieve the anticipated benefits from our past acquisitions or any additional businesses we acquire due to a number of factors, including:

- our inability to integrate, manage or benefit from acquired operations, technologies or services;
- unanticipated costs or liabilities associated with the acquisition, including the assumption of liabilities or commitments of the acquired business that were not disclosed to us or that exceeded our estimates;
- difficulty integrating the accounting systems, operations and personnel of the acquired business;
- difficulties and additional expenses associated with supporting legacy solutions and hosting infrastructure of the acquired business;
- uncertainty of entry into markets in which we have limited or no prior experience or in which competitors have stronger market positions;
- difficulty converting the customers of the acquired business to our solutions and contract terms, including disparities in the revenues, licensing, support or professional services model of the acquired company;
- diversion of management's attention from other business concerns;
- adverse effects to our existing business relationships with business partners and customers as a result of the acquisition;
- use of resources that are needed in other parts of our business;
- the use of a substantial portion of our cash that we may need to operate our business and which may limit our operational flexibility and ability to pursue additional strategic transactions;
- the issuance of additional equity securities that would dilute the ownership interests of our stockholders;
- incurrence of debt on terms unfavorable to us or that we are unable to repay;
- incurrence of large charges or substantial liabilities;
- our inability to apply and maintain internal standards, controls, procedures and policies with respect to the acquired businesses;
- difficulties retaining key employees of the acquired company or integrating diverse software codes or business culture; and

- becoming subject to adverse tax consequences, substantial depreciation or deferred compensation charges.

In addition, a significant portion of the purchase price of companies we acquire may be allocated to acquired goodwill and other intangible assets, which must be assessed for impairment at least annually. In the future, if our acquisitions do not yield expected returns, we may be required to take charges to our operating results based on this impairment assessment process, which could adversely affect our results of operations.

***We may not be able to secure sufficient additional financing on favorable terms, or at all, to meet our future capital needs.***

We may require additional capital in the future to pursue business opportunities or acquisitions or respond to challenges and unforeseen circumstances. We may also decide to engage in equity or debt financings or enter into credit facilities for other reasons. We may not be able to secure additional debt or equity financing in a timely manner, on favorable terms, or at all. Any debt financing we obtain in the future could involve restrictive covenants relating to our capital raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and pursue business opportunities, including potential acquisitions.

**Risks Related to Ownership of Our Common Stock**

***We have incurred and will continue to incur significant increased expenses and administrative burdens as a public company, which could have a material adverse effect on our operations and financial results.***

As a public company, we have incurred and will continue to incur significant legal, accounting, administrative and other costs and expenses. For example, we are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and are required to comply with the applicable requirements of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, and the Dodd-Frank Wall Street Reform and Consumer Protection Act, as well as rules and regulations subsequently implemented by the SEC, the Public Company Accounting Oversight Board and the New York Stock Exchange, including the establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. Compliance with public company requirements has increased our costs and made some activities more time-consuming. In addition, our management and other personnel have been required to divert attention from operational and other business matters to devote substantial time to these public company requirements. In particular, we have incurred and will continue to incur significant expenses as well as devote substantial management effort toward ensuring ongoing compliance with the requirements of Section 404 of the Sarbanes-Oxley Act. Although we have hired additional employees to comply with these requirements, we may need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge to comply with any regulatory changes.

Furthermore, if we identify any issues in complying with public company reporting requirements (for example, if our financial systems prove inadequate or we or our auditors identify deficiencies in our internal control over financial reporting), we could incur additional costs rectifying those issues, and the existence of those issues could adversely affect us, our reputation or investor perceptions of us. It is also more expensive to maintain director and officer liability insurance as a public company. Risks associated with our status as a public company may make it more difficult for us to attract and retain qualified persons to serve on our board of directors or as executive officers. The additional reporting and other obligations imposed on us by these rules and regulations have and we expect will continue to increase our legal and financial compliance costs and the costs of our related legal, accounting and administrative activities. These costs require us to divert a significant amount of money that we could otherwise use to expand our business and achieve our strategic objectives. Proposals submitted by stockholders at our annual meeting or other advocacy efforts by stockholders and third parties may also prompt additional changes in governance and reporting requirements, which could further increase our costs.

In addition, changing laws, regulations and standards relating to corporate governance and public disclosure are creating uncertainty for public companies, increasing legal and financial compliance costs and making some activities more time consuming. These laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This situation could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to their application and practice, regulatory authorities may initiate investigations, inquiries, administrative proceedings or legal proceedings against us and our business may be adversely affected.

***Any future sales of our common stock in the public markets, or the perception that such sales might occur, could reduce the price that our common stock might otherwise attain and may dilute the voting power and ownership interest in us of our then-existing stockholders.***

As of June 30, 2019, we had an aggregate of 47,569,900 outstanding shares of common stock. The shares sold in our public offerings can be freely sold in the public market without restriction unless they are held by "affiliates," as that term is defined in Rule 144 under the Securities Act. The remaining shares can be freely sold in the public market, subject in some cases to volume and other restrictions under Rule 144 under the Securities Act and various agreements. We, our directors and executive officers, who together beneficially owned approximately 11.0% of our common stock as of June 30, 2019, executed lock-up agreements in connection with the June 2019 common stock offering which are expected to expire on September 3, 2019. Sales of a substantial number of such shares upon expiration, or the perception that such sales may occur, or early release, of the lock-up could cause our share price to decline or make it more difficult for you to sell your common stock at a time and price that you deem appropriate.

In addition, we have registered 16,049,857 shares of common stock that we have issued and may issue under our stock plans. These shares can be freely sold in the public market upon issuance, subject in some cases to volume and other restrictions under Rules 144 under the Securities Act, and various vesting agreements. In addition, some of our employees, including some of our executive officers, have entered into 10b5-1 trading plans regarding sales of shares of our common stock. These plans provide for sales to occur from time to time. If any of these additional shares are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

In February 2018, we issued $230.0 million aggregate principal amount of 0.75% Convertible Senior Notes due 2023, or the 2023 Notes. In June 2019, we issued $316.3 million aggregate principal amount of 0.75% Convertible Senior Notes due 2026, or the 2026 Notes. In the future, we may issue additional securities to raise capital or in connection with investments and acquisitions. In addition, a substantial number of shares of our common stock are reserved for issuance upon conversion of our convertible notes. The amount of our common stock issued in connection with any such issuance could constitute a material portion of our then outstanding stock. Due to these factors, sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock.

***If securities or industry analysts publish unfavorable or misleading research about our business, or cease coverage of our company, our stock price and trading volume could decline.***

The trading market for our common stock depends in part on the research and reports that securities or industry analysts publish about us or our business. If one or more of the securities or industry analysts who covers us downgrades our stock or publishes unfavorable or misleading research about our business, our stock price would likely decline. If one or more of these analysts ceases coverage of our company or fails to publish reports on us regularly, we could lose visibility in the market for our stock, and demand for our stock could decrease, which could cause our stock price or trading volume to decline.

***Insiders continue to have significant control over us, which may limit our stockholders' ability to influence corporate matters and delay or prevent a third party from acquiring control over us.***

As of June 30, 2019, our directors, executive officers and holders of more than 5% of our common stock, together with their affiliates, beneficially owned, in the aggregate, approximately 11.0% of our outstanding common stock. This significant concentration of ownership may adversely affect the trading price for our common stock because investors often perceive disadvantages in owning stock in companies with one or more large stockholders. In addition, these stockholders will be able to exercise significant influence over all matters requiring stockholder approval, including the election of directors and approval of corporate transactions, such as a merger or other sale of our company or its assets. This concentration of ownership could limit other stockholders' ability to influence corporate matters and may have the effect of delaying or preventing a change in control, including a merger, consolidation or other business combination involving us, or discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control, even if that change in control would benefit our other stockholders.

***If we fail to maintain proper and effective internal controls, our ability to produce accurate and timely financial statements could be impaired, which could harm our operating results, our ability to operate our business and investors' views of us.***

Ensuring that we have adequate internal financial and accounting controls and procedures in place so that we can produce accurate financial statements on a timely basis is a costly and time-consuming effort that needs to be re-evaluated frequently, including if we acquire additional businesses and integrate their operations. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and preparation of financial statements in accordance with United States generally accepted accounting principles, or GAAP. While we have documented and assessed our internal controls, we continue to evaluate opportunities to further strengthen the effectiveness and efficiency of our internal controls and procedures for compliance with Section 404 of the Sarbanes-Oxley Act, which requires annual management assessment and annual independent registered public accounting firm attestation reports of the effectiveness of our internal control over financial reporting. If we make additional acquisitions, we will need to similarly assess and ensure the adequacy of the internal financial and accounting controls and procedures of such acquisitions. If we fail to maintain proper and effective internal controls, including with respect to acquired businesses, our ability to produce accurate and timely financial statements could be impaired, which could harm our operating results, harm our ability to operate our business and reduce the trading price of our common stock.

***Our stock price may be volatile.***

The trading price of our common stock has been and is expected to continue to be highly volatile and could be subject to wide fluctuations in response to various factors, including the risk factors described in this report, and other factors beyond our control. Factors affecting the trading price of our common stock include:

- variations in our operating results or the operating results of similar companies;
- announcements of technological innovations, new solutions or enhancements or strategic partnerships or agreements by us or by our competitors;
- changes in the estimates of our operating results, our financial guidance or changes in recommendations by any securities analysts that follow our common stock;
- the gain or loss of customers, particularly our larger customers;
- adoption or modification of regulations, policies, procedures or programs applicable to our business and our customers' business;
- marketing and advertising initiatives by us or our competitors;
- threatened or actual litigation;
- changes in our senior management; and
- recruitment or departure of key personnel.

In addition, the stock market in general and the market for technology companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. Broad market and industry factors may harm the market price of our common stock regardless of our actual operating performance. Each of these factors, among others, could adversely affect your investment in our common stock. Some companies that have had volatile market prices for their securities have had securities class action lawsuits filed against them. If a suit were filed against us, regardless of its merits or outcome, it could result in substantial costs and divert management's attention.

***We currently do not intend to pay dividends on our common stock, and, consequently, your only opportunity to achieve a return on your investment is if the price of our common stock appreciates.***

We have never declared nor paid cash dividends on our capital stock. We currently do not plan to declare dividends on shares of our common stock in the foreseeable future. We currently intend to retain any future earnings to finance the operation and expansion of our business. Any payment of future dividends will be at the discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements, general business conditions and other factors that our board of directors may deem relevant. Consequently, your only opportunity to achieve a return on your investment in our company will be if the market price of our common stock appreciates and you sell your shares at a profit. There is no guarantee that the price of our common stock that will prevail in the market will ever exceed the price that you paid for your common stock.

***Anti-takeover provisions in our charter documents and Delaware law could discourage, delay or prevent a change in control of our company and may affect the trading price of our common stock.***

We are a Delaware corporation and the anti-takeover provisions of the Delaware General Corporation Law, which apply to us, may discourage, delay or prevent a change in control by prohibiting us from engaging in a business combination with an interested stockholder for a period of three years after the stockholder becomes an interested stockholder, even if a change in control would be beneficial to our existing stockholders. In addition, our amended and restated certificate of incorporation and amended and restated bylaws may discourage, delay or prevent a change in our management or control over us that stockholders may consider favorable. Our certificate of incorporation and bylaws:

- authorize the issuance of "blank check" preferred stock that could be issued by our board of directors to help defend against a takeover attempt;
- require that directors only be removed from office for cause and only upon a supermajority stockholder vote;
- provide that vacancies on the board of directors, including newly created directorships, may be filled only by a majority vote of directors then in office rather than by stockholders;
- prevent stockholders from calling special meetings;
- include advance notice procedures for stockholders to nominate candidates for election as directors or bring matters before an annual meeting of stockholders;
- prohibit stockholder action by written consent, requiring all actions to be taken at a meeting of the stockholders; and
- provide that certain litigation against us can only be brought in Delaware.

***We may not be able to obtain capital when desired on favorable terms, if at all, and we may not be able to obtain capital or complete acquisitions through the use of equity or without dilution to our stockholders.***

We may need additional financing to execute on our current or future business strategies, including to develop new or enhance existing products and services, acquire businesses and technologies, or otherwise to respond to competitive pressures. If we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our stockholders could be significantly diluted, and newly-issued securities may have rights, preferences or privileges senior to those of existing stockholders. If we accumulate additional funds through debt financing, a substantial portion of our operating cash flow may be dedicated to the payment of principal and interest on such indebtedness, thus limiting funds available for our business activities. We cannot assure you that additional financing will be available on terms favorable to us, or at all. If adequate funds are not available or are not available on acceptable terms, when we desire them, our ability to fund our operations, take advantage of unanticipated opportunities, develop or enhance our products and services, or otherwise respond to competitive pressures would be significantly limited. Any of these factors could harm our results of operations.

**Risks Related to Our Convertible Notes**

***We incurred indebtedness by issuing our 2023 Notes in 2018 and our 2026 notes in 2019 and our debt repayment obligations may adversely affect our financial condition and cash flows from operations in the future.***

Our indebtedness under our convertible notes may impair our ability to obtain additional financing in the future for general corporate purposes, including working capital, capital expenditures, potential acquisitions and strategic transactions, and a portion of our cash flows from operations may have to be dedicated to repaying the principal of the 2023 Notes in 2023 and the principal of the 2026 Notes in 2026 or earlier if necessary. Our ability to meet our debt obligations will depend on our future performance, which will be affected by financial, business, economic, regulatory and other factors. We cannot control many of these factors. Our future operations may not generate sufficient cash to enable us to repay our debt, including the 2023 Notes or 2026 Notes. If we fail to make a payment on our debt, we could be in default on such debt. If we are at any time unable to pay our indebtedness when due, we may be required to renegotiate the terms of the indebtedness, seek to refinance all or a portion of the indebtedness or obtain additional financing. There can be no assurance that, in the future, we will be able to successfully renegotiate such terms, that any such refinancing would be possible or that any additional financing could be obtained on terms that are favorable or acceptable to us.

In addition, holders of each series of our convertible notes will have the right to require us to repurchase all or a portion of their notes upon the occurrence of a fundamental change, as defined in the respective indentures, at a repurchase price equal to 100% of the principal amount of the notes to be repurchased, plus accrued and unpaid interest. Upon conversion of each series of convertible notes, 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 make cash payments in respect of the series of notes being converted. However, we may not have enough available cash or be able to obtain financing at the time we are required to make repurchases of the series of convertible notes surrendered therefor or at the time such series of convertible notes is being converted. In addition, our ability to repurchase each series of convertible notes or to pay cash upon conversions of each series of convertible notes may be limited by law, by regulatory authority or by agreements governing our future indebtedness. Our failure to repurchase a series of convertible notes at a time when the repurchase is required by the indenture or to pay any cash payable on future conversions of such series of convertible notes as required by the indenture governing such series of convertible notes would constitute a default under such indenture. A default under the indenture or the fundamental change itself could also lead to a default under agreements governing our future indebtedness. If the repayment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness and repurchase the notes or make cash payments upon conversions thereof. An event of default under the indenture governing the notes may lead to an acceleration of the notes. Any such acceleration could result in our bankruptcy. In a bankruptcy, the holders of the notes would have a claim to our assets that is senior to the claims of our equity holders.

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

The conversion of some or all of our convertible notes will dilute the ownership interests of existing stockholders. Any sales in the public market of our common stock issuable upon such conversion of our convertible notes could adversely affect prevailing market prices of our common stock. In addition, the existence of the convertible notes may encourage short selling by market participants because the conversion of the notes could be used to satisfy short positions, or anticipated conversion of the convertible notes into shares of our common stock could depress the price of our common stock.

***Our convertible notes bond hedge and warrant transactions entered into in connection with the February 2018 convertible note offering may affect the value of our common stock.***

In connection with the February 2018 convertible note offering, we entered into convertible notes bond hedge, or Bond Hedge, transactions with one or more counterparties. We also entered into warrant transactions with the counterparties pursuant to which we sold warrants for the purchase of our common stock. The February 2018 Bond Hedge transactions related to the 2023 Notes are expected generally to reduce the potential dilution upon any conversion of 2023 Notes or offset any cash payments we are required to make in excess of the principal amount upon conversion of any 2023 Notes. The warrant transactions could separately have a dilutive effect to the extent that the market price per share of our common stock exceeds the strike price of the warrants. In connection with establishing their initial hedges of the 2023 Note hedge and warrant transactions, the counterparties or their respective affiliates purchased shares of our common stock or entered into various derivative transactions with respect to our common stock concurrently with or shortly after the pricing of the 2023 Notes. The counterparties or their respective affiliates may modify their hedge positions by entering into or unwinding various derivatives with respect to our common stock or purchasing or selling our common stock in secondary market transactions prior to the maturity of the 2023 Notes, and are likely to do so during any observation period related to a conversion of 2023 Notes or following any repurchase of 2023 Notes by us. This activity could also cause or avoid an increase or a decrease in the market price of our common stock.

***The capped call transactions entered into in connection with the June 2019 convertible note offering may affect the value of our common stock.***

In connection with the June 2019 convertible note offering, we entered into capped call transactions with one or more counterparties, or the Capped Calls. The Capped Calls cover, subject to customary adjustments, the number of shares of our common stock initially underlying the 2026 Notes. The Capped Calls are expected to offset the potential dilution and/or offset any cash payments we are required to make in excess of the principal amount of converted 2026 Notes, as the case may be, as a result of conversion of the 2026 Notes, with such offset subject to a cap. In connection with establishing their initial hedges of the Capped Calls, the counterparties or their respective affiliates purchased shares of our common stock or entered into various derivative transactions with respect to our common stock concurrently with or shortly after the pricing of the 2026 Notes. The counterparties or their respective affiliates may modify their hedge positions by entering into or unwinding various derivatives with respect to our common stock and/or purchasing or selling our common stock or other securities of ours in secondary market transactions prior to the maturity of the 2026 Notes, and are likely to do so during any observation period related to a conversion of the 2026 Notes or following any repurchase of 2026 Notes by us. This activity could also cause or avoid an increase or a decrease in the market price of our common stock.

***Certain provisions in the indentures governing our convertible notes may delay or prevent an otherwise beneficial takeover attempt of us.***

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

***If the conditional conversion feature of either series of convertible notes is triggered, our financial condition and operating results may be adversely affected.***

In the event the conditional conversion feature of the 2023 Notes or 2026 Notes is triggered, note holders will be entitled to convert their 2023 Notes or 2026 Notes, as the case may be, at any time during specified periods at their option. If one or more holders elect to convert the 2023 Notes or 2026 Notes, unless we elect to satisfy our conversion obligation by delivering solely shares of our common stock (other than paying cash in lieu of delivering any fractional share), we would be required to settle a portion or all of our conversion obligation in cash, which could adversely affect our liquidity. In addition, even if holders of the 2023 Notes or 2026 Notes do not elect to convert their 2023 Notes or 2026 Notes, as the case may be, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the 2023 Notes or 2026 Notes, as the case may be, as a current rather than long-term liability, which would result in a material reduction of our net working capital.

***The accounting method for convertible notes that may be settled in cash, such as our convertible notes, could have a material effect on our reported financial results.***

Under ASC 470-20, "Debt with Conversion and Other Options," an entity must separately account for the liability and equity components of the convertible debt instruments, such as our convertible notes, that may be settled entirely or partially in cash upon conversion in a manner that reflects the issuer's economic interest cost. The effect of ASC 470-20 on the accounting for our convertible notes is that the equity component is required to be included in the additional paid-in capital section of stockholders' equity on our consolidated balance sheet at the issuance date and the value of the equity component would be treated as debt discount for purposes of accounting for the debt component of our convertible notes. As a result, we will be required to record a greater amount of non-cash interest expense as a result of the amortization of the discounted carrying value of our convertible notes to their face amount over the applicable term of the convertible notes. We will report larger net losses, or lower net income, in our financial results because ASC 470-20 will require interest to include both the amortization of the debt discount and the instrument's nonconvertible coupon interest rate, which could adversely affect our reported or future financial results, the trading price of our common stock and the trading price of the convertible notes.

In addition, under certain circumstances, convertible debt instruments, such as our convertible notes, that may be settled entirely or partly in cash may be accounted for utilizing the treasury stock method, the effect of which is that the shares issuable upon conversion of the 2023 Notes or 2026 Notes, as the case may be, are not included in the calculation of diluted earnings per share except to the extent that the conversion value of the 2023 Notes and 2026 Notes, as the case may be, exceeds their principal amount. Under the treasury stock method, for diluted earnings per share purposes, the transaction is accounted for as if the number of shares of common stock that would be necessary to settle such excess, if we elected to settle such excess in shares, are issued. We cannot be sure that the accounting standards in the future will continue to permit the use of the treasury stock method. If we are unable or otherwise elect not to use the treasury stock method in accounting for the shares issuable upon conversion of the 2023 Notes and 2026 Notes, as the case may be, then our diluted earnings per share could be adversely affected.

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

***(a) Sales of Unregistered Securities***

None.

***(b) Use of Proceeds***

On June 10, 2019, we completed a registered public offering of 2,637,986 shares of our common stock at a price of $69.50 per share, before underwriting discounts and commissions, and on June 12, 2019, we completed the sale of an additional 395,698 shares of our common stock, at a price of $69.50 per share, before underwriting discounts and commissions, as a result of the underwriters' exercise of their option to purchase additional shares. We sold 2,913,684 of such shares and an existing stockholder sold an aggregate of 120,000 of such shares. We did not receive any proceeds from the sale of shares by the selling stockholder in the June 2019 common stock offering. The offer and sale of all of the shares in the June 2019 common stock offering were registered under the Securities Act pursuant to a registration statement on Form S-3 (File No. 333-231947), which was declared effective by the SEC on June 4, 2019. There have been no material changes in the planned use of proceeds from our June 2019 common stock offering from that described in the final prospectus filed with the SEC pursuant to Rule 424(b) on June 6, 2019.

***(c) Repurchases***

| | Total Number of Shares Purchased [(1)] | Average Price Paid Per Share [(2)] | Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs | Approximate Dollar Value of Shares That May Be Purchased Under the Plans or Programs |
|---|---|---|---|---|
| April 1 - 30, 2019 | — | $ — | $ — | $ — |
| May 1 - 31, 2019 | 1,450 | 73.31 | — | — |
| June 1 - 30, 2019 | 1,982 | 72.50 | — | — |
| Total | 3,432 | 72.84 | $ — | $ — |

(1) Total shares purchased are attributable to shares of common stock tendered to us by one or more holders of common stock options to cover the exercise price of options exercised.

(2) Reflects the closing price of Q2 Holdings, Inc. shares as reported on the New York Stock Exchange on the date of exercise.

**Item 3. Defaults Upon Senior Securities.**

None.

**Item 4. Mine Safety Disclosures.**

Not applicable.

**Item 5. Other Information.**

None.

**Item 6. Exhibits.**

The information required by this Item is set forth on the exhibit index that precedes the signature page of this Quarterly Report on Form 10-Q.

**EXHIBIT INDEX**

| Exhibit Number | | Description of Document |
|---|---|---|
| 3.1 | * | Fifth Amended and Restated Certificate of Incorporation of the Registrant (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the Securities an Exchange Commission on June 12, 2019). |
| 3.2 | * | Amended and Restated Bylaws of the Registrant (filed as Exhibit 3.2 to the Registrant's Current Report on Form 8-K filed with the Securities an Exchange Commission on June 12, 2019). |
| 4.1 | * | Indenture, dated June 10, 2019 between Q2 Holdings, Inc. and Wilmington Trust, National Association, as trustee (filed as Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on June 11, 2019). |
| 4.2 | * | Form of Global Note, dated June 10, 2019 between Q2 Holdings, Inc. and Wilmington Trust, National Association, as trustee (filed as Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on June 11, 2019). |
| 10.1 | * | Purchase Agreement, dated June 5, 2019 by and among Q2 Holdings, Inc., Morgan Stanley & Co. LLC, J.P. Morgan Securities LLC, Stifel, Nicolaus & Company, Incorporated and BMO Capital Markets Corp., as representatives of the several initial purchasers named therein (filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on June 6, 2019). |
| 10.2 | * | Form of Capped Call Confirmation (filed as Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on June 6, 2019). |
| 31.1 | ** | Certification of Chief Executive Officer pursuant to Exchange Act Rule, 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| 31.2 | ** | Certification of Chief Financial Officer pursuant to Exchange Act Rule, 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| 32.1 | # | Certification pursuant to 18 U.S.C. 1350, adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, by Chief Executive Officer. |
| 32.2 | # | Certification pursuant to 18 U.S.C. 1350, adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, by Chief Financial Officer. |
| 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 Extension Schema Document. |
| 101.CAL | ** | XBRL Taxonomy Extension Calculation Linkbase Document. |
| 101.DEF | ** | XBRL Taxonomy Extension Definition Linkbase Document. |
| 101.LAB | ** | XBRL Taxonomy Extension Label Linkbase Document. |
| 101.PRE | ** | XBRL Taxonomy Extension Presentation Linkbase Document. |

* Incorporated herein by reference to the indicated filing.
** Filed herewith.
# Furnished herewith.

Table of Contents

## 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.

| | | |
|---|---|---|
| | **Q2 HOLDINGS, INC.** | |
| August 8, 2019 | By: | /s/ MATTHEW P. FLAKE<br>Matthew P. Flake<br>*President and Chief Executive Officer*<br>*(Principal Executive Officer)* |
| August 8, 2019 | By: | /s/ JENNIFER N. HARRIS<br>Jennifer N. Harris<br>*Chief Financial Officer*<br>*(Principal Financial and Accounting Officer)* |

**EXHIBIT 31.1**

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO SECTION 302(a) OF THE SARBANES-OXLEY ACT OF 2002**

I, Matthew P. Flake, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Q2 Holdings, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 8, 2019

/s/ MATTHEW P. FLAKE

Matthew P. Flake
President and Chief Executive Officer
(Principal Executive Officer)

**EXHIBIT 31.2**

**CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO SECTION 302(a) OF THE SARBANES-OXLEY ACT OF 2002**

I, Jennifer N. Harris, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Q2 Holdings, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 8, 2019

/s/ JENNIFER N. HARRIS

Jennifer N. Harris
Chief Financial Officer
(Principal Financial and Accounting Officer)

**EXHIBIT 32.1**

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

The undersigned, the President and Chief Executive Officer of Q2 Holdings, Inc. (the "Company"), does hereby certify under the standards set forth and solely for the purposes of 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report on Form 10-Q of the Company for the three months ended June 30, 2019 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and information contained in that Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 8, 2019

/s/ MATTHEW P. FLAKE

Matthew P. Flake
President and Chief Executive Officer
(Principal Executive Officer)

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

**EXHIBIT 32.2**

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

The undersigned, the Chief Financial Officer of Q2 Holdings, Inc. (the “Company”), does hereby certify under the standards set forth and solely for the purposes of 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report on Form 10-Q of the Company for the three months ended June 30, 2019 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and information contained in that Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 8, 2019

/s/ JENNIFER N. HARRIS

Jennifer N. Harris
Chief Financial Officer
(Principal Financial and Accounting Officer)

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.