

**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 September 30, 2023

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

State or Other Jurisdiction of
Incorporation or Organization

10355 Pecan Park Boulevard

Austin, Texas

Address of Principal Executive Offices

20-2706637

I.R.S. Employer Identification No.

78729

Zip Code

(833) 444-3469

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: 58,635,005 shares of Common Stock, \$0.0001 par value per share as of October 31, 2023.

TABLE OF CONTENTS

	PAGE
<u>PART I: FINANCIAL INFORMATION</u>	
Item 1. Financial Statements.	5
Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.	23
Item 3. Quantitative and Qualitative Disclosures About Market Risk.	42
Item 4. Controls and Procedures.	43
<u>PART II: OTHER INFORMATION</u>	
Item 1. Legal Proceedings.	44
Item 1A. Risk Factors.	44
Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.	75
Item 3. Defaults Upon Senior Securities.	75
Item 4. Mine Safety Disclosures.	75
Item 5. Other Information.	75
Item 6. Exhibits.	76
<u>SIGNATURES</u>	77

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 and information 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," "potential," "predicts," "projects," "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 could cause or contribute to such differences include, but are not limited to, the following:

- uncertainties in the financial services industry, including as a result of recent bank failures, and the potential impacts on our customers' prospects and our business sales cycles, our prospects' and customers' spending decisions, including professional services which are more discretionary in nature, and the timing of customer implementation and purchasing decisions;*
- the risk of increased or new competition in our existing markets and as we enter new markets or new sections of existing markets, or as we offer new solutions;*
- the risks associated with the development of our solutions and changes to the market for our solutions compared to our expectations;*
- quarterly fluctuations in our operating results relative to our expectations and guidance and the accuracy of our forecasts;*
- the risks associated with anticipated higher operating expenses for the remainder of 2023 and beyond;*
- the impact that rising interest rates, inflation, an economic slowdown, or challenges in the financial services industry, financial markets and credit markets have had to date or in the future could have on account holder or end user, or End User, usage of our solutions, including the promotion and adoption of our Helix and payment solutions, and on our customers' prospects and our business sales cycles, our prospects' and customers' spending decisions, including for professional services which are more discretionary in nature, and the timing of customer implementation and purchasing decisions;*
- the risks and increased costs associated with managing growth and the challenges associated with improving operations and hiring, retaining and motivating employees to support such growth, particularly in light of macroeconomic factors, including increased employee turnover, labor shortages, wage inflation and extreme competition for talent;*
- the risk that the residual impacts of the COVID-19 pandemic continue to or that any renewed efforts to limit its spread could negatively impact or disrupt the markets for our solutions and that the markets for our solutions do not return to normal or grow as anticipated;*
- the risks associated with our transactional business which are typically driven by end-user behavior which can be influenced by external drivers outside of our control;*
- the risks associated with effectively managing our cost structure in light of the challenging macroeconomic environment, challenges in the financial services industry and from the effects of seasonal or other unexpected trends;*
- the risks associated with the general economic and geopolitical uncertainties, including the heightened risk of state-sponsored cyberattacks on financial services and other critical infrastructure, and continued or increased inflation driven by unpredictable economic impacts that have and may continue to negatively affect demand for our solutions;*
- the risks associated with managing our business in response to continued challenging macroeconomic conditions, challenges in the financial services industry and any anticipated or resulting recession;*

- *the risks associated with accurately forecasting and managing the impacts of any macroeconomic downturn or challenges in the financial services industry on our customers and their end users, including in particular the impacts of any downturn on financial technology companies, or FinTechs, or alternative finance companies, or Alt-FIs, and our arrangements with them, which represent a newer market opportunity for us, a more complex revenue model for us and which may be more vulnerable to an economic downturn than our financial institution customers;*
- *the challenges and costs associated with selling, implementing and supporting our solutions, particularly for larger customers with more complex requirements and longer implementation processes, including risks related to the timing and predictability of sales of our solutions and the impact that the timing of bookings may have on our revenue and financial performance in a period;*
- *the risk that errors, interruptions or delays in our solutions or Web hosting negatively impacts our business and sales;*
- *the risks associated with cyberattacks, data and privacy breaches and breaches of security measures within our products, systems and infrastructure or the products, systems and infrastructure of third parties upon which we rely and the resultant costs and liabilities and harm to our business and reputation and our ability to sell our solutions;*
- *the difficulties and risks associated with developing and selling complex new solutions and enhancements with the technical and regulatory specifications and functionality required by our customers and relevant governmental authorities;*
- *regulatory risks, including risks related to evolving regulation of artificial intelligence, or AI, machine learning and the receipt, collection, storage, processing and transfer of data;*
- *the risks associated with our sales and marketing capabilities, including partner relationships and the length, cost and unpredictability of our sales cycle;*
- *the risks inherent in third-party technology and implementation partnerships that could cause harm to our business;*
- *the risk that we will not be able to maintain historical contract terms such as pricing and duration;*
- *the general risks associated with the complexity of our customer arrangements and our solutions;*
- *the risks associated with integrating acquired companies and successfully selling and maintaining their solutions;*
- *litigation related to intellectual property and other matters and any related claims, negotiations and settlements;*
- *the risks associated with further consolidation in the financial services industry;*
- *the risks associated with selling our solutions internationally and with the recent expansion of our international operations;*
- *the risk that our debt repayment obligations may adversely affect our financial condition and cash flows from operations in the future and that we may not be able to obtain capital when desired or needed on favorable terms; and*
- *such other risks and uncertainties described more fully in documents filed with or furnished to the Securities and Exchange Commission, or the SEC, including the risk factors discussed below and elsewhere in this Quarterly Report on Form 10-Q, particularly in the sections titled "Risk Factors."*

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.

PART I - FINANCIAL INFORMATION

Item 1. Financial Statements.

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

	September 30, 2023 (unaudited)	December 31, 2022
Assets		
Current assets:		
Cash and cash equivalents	\$ 155,993	\$ 199,600
Restricted cash	2,069	2,302
Investments	134,789	233,753
Accounts receivable, net	44,451	46,735
Contract assets, current portion, net	10,845	8,909
Prepaid expenses and other current assets	14,633	10,832
Deferred solution and other costs, current portion	25,162	21,117
Deferred implementation costs, current portion	8,753	7,828
Total current assets	396,695	531,076
Property and equipment, net	44,813	56,695
Right of use assets	34,105	39,837
Deferred solution and other costs, net of current portion	27,093	26,410
Deferred implementation costs, net of current portion	21,062	18,713
Intangible assets, net	128,354	145,681
Goodwill	512,869	512,869
Contract assets, net of current portion and allowance	10,823	16,186
Other long-term assets	3,435	2,259
Total assets	\$ 1,179,249	\$ 1,349,726
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	\$ 15,113	\$ 10,055
Accrued liabilities	17,606	20,748
Accrued compensation	18,525	23,460
Convertible notes, current portion	—	10,903
Deferred revenues, current portion	115,777	117,468
Lease liabilities, current portion	9,071	9,408
Total current liabilities	176,092	192,042
Convertible notes, net of current portion	489,969	657,789
Deferred revenues, net of current portion	17,932	21,691
Lease liabilities, net of current portion	46,890	52,991
Other long-term liabilities	7,339	6,189
Total liabilities	738,222	930,702
Commitments and contingencies (Note 8)		
Stockholders' equity:		
Preferred stock: \$0.0001 par value; 5,000 shares authorized, no shares issued or outstanding as of September 30, 2023 and December 31, 2022	—	—
Common stock: \$0.0001 par value; 150,000 shares authorized, 58,635 issued and outstanding as of September 30, 2023 and 57,735 shares issued and outstanding as of December 31, 2022	6	6
Additional paid-in capital	1,050,630	982,300
Accumulated other comprehensive loss	(1,994)	(2,972)
Accumulated deficit	(607,615)	(560,310)
Total stockholders' equity	441,027	419,024
Total liabilities and stockholders' equity	\$ 1,179,249	\$ 1,349,726

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 September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Revenues	\$ 154,967	\$ 144,751	\$ 462,506	\$ 419,131
Cost of revenues	80,834	77,895	241,248	228,988
Gross profit	74,133	66,856	221,258	190,143
Operating expenses:				
Sales and marketing	26,123	27,966	82,968	79,709
Research and development	34,542	33,099	103,063	96,062
General and administrative	28,084	22,614	79,903	66,467
Transaction-related costs	3	352	24	882
Amortization of acquired intangibles	5,250	4,422	15,764	13,266
Lease and other restructuring charges	3,303	5,494	7,576	6,031
Total operating expenses	97,305	93,947	289,298	262,417
Loss from operations	(23,172)	(27,091)	(68,040)	(72,274)
Other income (expense):				
Interest and other income	2,328	1,420	6,711	2,899
Interest and other expense	(1,317)	(1,651)	(4,342)	(5,024)
Gain (loss) on extinguishment of debt	—	—	19,869	—
Total other income (expense), net	1,011	(231)	22,238	(2,125)
Loss before income taxes	(22,161)	(27,322)	(45,802)	(74,399)
Provision for income taxes	(1,006)	(469)	(1,503)	(2,173)
Net loss	\$ (23,167)	\$ (27,791)	\$ (47,305)	\$ (76,572)
Other comprehensive income (loss):				
Unrealized gain (loss) on available-for-sale investments	423	(746)	1,285	(2,363)
Foreign currency translation adjustment	(470)	(291)	(307)	(1,105)
Comprehensive loss	\$ (23,214)	\$ (28,828)	\$ (46,327)	\$ (80,040)
Net loss per common share, basic and diluted	\$ (0.40)	\$ (0.48)	\$ (0.81)	\$ (1.34)
Weighted average common shares outstanding:				
Basic and diluted	58,492	57,362	58,223	57,205

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)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Total stockholders' equity, beginning balances	\$ 441,407	\$ 440,939	\$ 419,024	\$ 570,296
Common stock and additional paid-in capital:				
Beginning balances	1,027,802	943,613	982,306	1,064,364
Stock-based compensation expense	22,445	17,783	63,869	51,208
Exercise of stock options	389	451	863	707
Issuance of common stock under ESPP	—	—	3,459	2,547
Cumulative effect of the adoption of new accounting standard	—	—	—	(156,979)
Settlement of capped calls	—	—	139	—
Ending balances	1,050,636	961,847	1,050,636	961,847
Accumulated deficit:				
Beginning balances	(584,448)	(500,108)	(560,310)	(493,933)
Cumulative effect of the adoption of new accounting standard	—	—	—	42,606
Net loss	(23,167)	(27,791)	(47,305)	(76,572)
Ending balances	(607,615)	(527,899)	(607,615)	(527,899)
Accumulated other comprehensive income (loss):				
Beginning balances	(1,947)	(2,566)	(2,972)	(135)
Other comprehensive income (loss)	(47)	(1,037)	978	(3,468)
Ending balances	(1,994)	(3,603)	(1,994)	(3,603)
Total stockholders' equity, ending balances	\$ 441,027	\$ 430,345	\$ 441,027	\$ 430,345
Common stock (in shares):				
Beginning balances	58,447	57,313	57,735	56,928
Exercise of stock options	13	16	32	28
Issuance of common stock under ESPP	—	—	146	57
Shares issued for the vesting of restricted stock awards	175	188	722	504
Ending balances	58,635	57,517	58,635	57,517

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)

	Nine Months Ended September 30,	
	2023	2022
Cash flows from operating activities:		
Net loss	\$ (47,305)	\$ (76,572)
Adjustments to reconcile net loss to net cash from operating activities:		
Amortization of deferred implementation, solution and other costs	19,184	17,227
Depreciation and amortization	53,764	45,237
Amortization of debt issuance costs	1,608	2,043
Amortization of premiums and discounts on investments	(2,791)	311
Stock-based compensation expense	59,819	51,208
Realized (gain) loss on investments	482	17
Deferred income taxes	(120)	943
Allowance for credit losses	(303)	56
Allowance for sales credits	(35)	(58)
Loss on disposal of long-lived assets	60	132
(Gain) loss on extinguishment of debt	(19,312)	—
Lease impairments	3,982	6,031
Changes in operating assets and liabilities:		
Accounts receivable, net	2,605	(5,617)
Prepaid expenses and other current assets	(3,818)	(3,183)
Deferred solution and other costs	(12,955)	(7,341)
Deferred implementation costs	(11,496)	(10,666)
Contract assets, net	3,427	(4,620)
Other long-term assets	3,063	5,677
Accounts payable	5,115	1,622
Accrued liabilities	(8,742)	(16,630)
Deferred revenues	(5,452)	(5,973)
Deferred rent and other long-term liabilities	(7,065)	(7,151)
Net cash provided by (used in) operating activities	33,715	(7,307)
Cash flows from investing activities:		
Purchases of investments	(76,820)	(214,084)
Maturities of investments	179,379	113,156
Purchases of property and equipment	(4,568)	(8,933)
Capitalized software development costs	(19,322)	(15,662)
Net cash provided by (used in) investing activities	78,669	(125,523)
Cash flows from financing activities:		
Payment for maturity of 2023 convertible notes	(10,908)	—
Payments for repurchases of convertible notes	(149,640)	—
Proceeds from capped calls related to convertible notes	139	—
Proceeds from the exercise of stock options and ESPP	4,322	3,254
Net cash provided by (used in) financing activities	(156,087)	3,254
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(137)	(939)
Net decrease in cash, cash equivalents and restricted cash	(43,840)	(130,515)
Cash, cash equivalents and restricted cash, beginning of period	201,902	325,821
Cash, cash equivalents and restricted cash, end of period	\$ 158,062	\$ 195,306
Supplemental disclosure of non-cash investing and financing activities:		
Property and equipment acquired and included in accounts payable and accrued liabilities	\$ 472	\$ 30
Stock-based compensation for capitalized software development	\$ 2,423	\$ —

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 digital banking and lending solutions to financial institutions, financial technology companies, or FinTechs, alternative finance companies, or Alt-FIs, and other innovative companies, or Brands, wishing to incorporate banking into their customer engagement and servicing strategies. The Company's solutions transform the ways in which its customers engage with account holders and end users, or End Users, enabling them to deliver robust suites of digital banking, lending, 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 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, 2022, which are included in the Company's Annual Report on Form 10-K, filed with the SEC on February 21, 2023. The results of operations for the three and nine months ended September 30, 2023 are not necessarily indicative of the results to be expected for the year ending December 31, 2023 or for any other period.

Reclassifications

During the fourth quarter of 2022, the Company began separately presenting the effect of exchange rate changes on cash and cash equivalents in its consolidated statements of cash flows due to volatility in foreign currency exchange rates. Amounts in the comparable prior periods have been reclassified to conform to the current period presentation. The reclassifications resulted in the disaggregation of the amount attributable to the "Effect of exchange rate changes on cash" of \$0.9 million with a corresponding increase to "Net cash provided by operating activities," for the nine months ended September 30, 2022. The Company believes the reclassification is not material to the consolidated financial statements.

Use of Estimates

The preparation of the 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; estimate of credit losses; fair value of certain stock awards issued; 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; the impairment assessment of long-lived assets; 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.

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

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, accounts receivable and contract assets. 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 majority 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 nine months ended September 30, 2023 and 2022. One customer accounted for 11% of accounts receivable, net, as of September 30, 2023 and two customers accounted for 12% and 10% of accounts receivable, net, as of December 31, 2022.

Summary of Significant Accounting Policies

There were no material changes to our significant accounting policies during the nine months ended September 30, 2023 compared to the significant accounting policies described in our Form 10-K.

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 September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Numerator:				
Net loss	\$ (23,167)	\$ (27,791)	\$ (47,305)	\$ (76,572)
Denominator:				
Weighted-average common shares outstanding, basic and diluted	58,492	57,362	58,223	57,205
Net loss per common share, basic and diluted	<u>\$ (0.40)</u>	<u>\$ (0.48)</u>	<u>\$ (0.81)</u>	<u>\$ (1.34)</u>

Due to net losses for the three and nine months ended September 30, 2023 and 2022, basic and diluted loss per share were the same, as the effect of all potentially dilutive securities would have been anti-dilutive. The dilutive impact of the convertible senior notes was calculated using the if-converted method. The following table sets forth the anti-dilutive common share equivalents for the periods listed:

	As of September 30,	
	2023	2022
Stock options, restricted stock units, market stock units and performance stock units	5,067	3,233
Shares issuable pursuant to the ESPP	117	81
Shares related to convertible notes	5,126	6,256
	<u>10,310</u>	<u>9,570</u>

Recent Accounting Pronouncements

There were no accounting pronouncements recently issued that had or are expected to have a material impact on our condensed consolidated financial statements.

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

3. Revenue

Revenue Recognition

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.

Disaggregation of Revenue

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, transactional revenue from bill-pay solutions and revenues for professional services and implementation services related to the Company's solutions.

The following table disaggregates the Company's revenue by major source:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Subscription	\$ 118,829	\$ 106,644	\$ 350,019	\$ 304,010
Transactional	16,236	15,930	49,532	50,714
Services and Other	19,902	22,177	62,955	64,407
Total Revenues	<u>\$ 154,967</u>	<u>\$ 144,751</u>	<u>\$ 462,506</u>	<u>\$ 419,131</u>

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 decrease in the deferred revenue balance for the nine months ended September 30, 2023 was primarily driven by the recognition of \$354.6 million of revenue recognized from current year invoices, \$108.2 million of revenue that was included in the deferred revenue balance as of December 31, 2022 and \$2.2 million from the netting of contract assets and liabilities on a contract-by-contract basis, partially offset by the amounts due in advance of satisfying the Company's performance obligations of \$459.5 million for current year invoices. 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 period of time 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.

Remaining Performance Obligations

On September 30, 2023, the Company had \$1.57 billion 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 58% of its remaining performance obligations as revenue in the next 24 months, an additional 29% in the next 25 to 48 months, and the balance thereafter.

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

Credit Losses

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 condensed consolidated balance sheets at the end of each reporting period. The Company is exposed to credit losses primarily through sales of products and services. The Company assesses the collectability of outstanding contract assets on an ongoing basis and maintains a reserve which is included in the allowance for credit losses for contract assets deemed uncollectible. The Company analyzes the contract asset portfolio for significant risks by considering historical collection experience and forecasting future collectability to determine the amount of revenues that will ultimately be collected from its customers. Customer type (whether a customer is a financial institution or other digital solution provider) has been identified as the primary specific risk affecting the Company's contract assets, and the estimate for losses is analyzed quarterly and adjusted as necessary. Future collectability is contingent upon current and anticipated macroeconomic conditions that could impact the Company's customers such as unemployment, inflation and regulatory matters. Additionally, specific allowance amounts may be established to record the appropriate provision for customers that have a higher probability of default. The Company has provisioned \$0.1 million and \$0.3 million for expected losses for the nine months ended September 30, 2023 and 2022, respectively, of which zero and \$0.4 million has been written off and charged against the allowance at September 30, 2023 and 2022, respectively. The allowance for credit losses related to contract assets was \$0.1 million at both September 30, 2023 and December 31, 2022.

The Company assesses the collectability of outstanding accounts receivable on an ongoing basis and maintains an allowance for credit losses for accounts receivable deemed uncollectible. The Company analyzes the accounts receivable portfolio for significant risks and considers prior periods and forecasts future collectability to determine the amount of revenues that will ultimately be collected from its customers. This estimate is analyzed quarterly and adjusted as necessary. Identified risks pertaining to the Company's accounts receivable include the delinquency level and customer type. Future collectability is contingent upon current and anticipated macroeconomic conditions that could impact the Company's customers such as unemployment, inflation and regulation matters. Due to the short-term nature of such receivables, the estimate of the amount of accounts receivable that may not be collected is based on aging of the accounts receivable balances and the financial condition of customers. Historically, the Company's collection experience has not varied significantly, and bad debt expenses have been insignificant. The Company has provisioned zero and \$0.4 million for expected losses for the nine months ended September 30, 2023 and 2022, respectively, of which \$0.3 million and \$0.4 million has been written off and charged against the allowance as of September 30, 2023 and 2022, respectively. The allowance for credit losses related to accounts receivable was \$0.4 million and \$0.7 million at September 30, 2023 and December 31, 2022, respectively.

4. Fair Value Measurements

The carrying values of the Company's financial assets not measured at fair value on a recurring basis, principally 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.

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

The following table details the fair value hierarchy of the Company's financial assets measured at fair value on a recurring basis as of September 30, 2023:

	Fair Value	Fair Value Measurements Using:		
		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	\$ 43,539	\$ 43,539	\$ —	\$ —
Investments:				
Corporate bonds and commercial paper	\$ 40,328	\$ —	\$ 40,328	\$ —
Certificates of deposit	9,470	—	9,470	—
U.S. government securities	84,911	—	84,911	—
	\$ 134,709	\$ —	\$ 134,709	\$ —

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, 2022:

	Fair Value	Fair Value Measurements Using:		
		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	\$ 20,998	\$ 20,998	\$ —	\$ —
Certificates of deposit	25,547	—	25,547	—
U.S. government securities	2,498	2,498	—	—
	<u>\$ 49,043</u>	<u>\$ 23,496</u>	<u>\$ 25,547</u>	<u>\$ —</u>
Investments:				
	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level I)	Significant Other Observable Inputs (Level II)	Significant Unobservable Inputs (Level III)
Corporate bonds and commercial paper	\$ 56,739	\$ —	\$ 56,739	\$ —
Certificates of deposit	5,016	—	5,016	—
U.S. government securities	171,772	—	171,772	—
	<u>\$ 233,527</u>	<u>\$ —</u>	<u>\$ 233,527</u>	<u>\$ —</u>

The Company determines the fair value of the vast majority of its debt 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).

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

5. Cash, Cash Equivalents and Investments

The Company's cash, cash equivalents and investments as of September 30, 2023 and December 31, 2022 consisted primarily of cash, U.S. government securities, corporate bonds, commercial paper, certificates of deposit, money market funds and other equity investments. 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. Restricted cash consists of deposits held as collateral for the Company's secured letters of credit or bank guarantees issued in place of security deposits for the Company's corporate headquarters and various other leases.

The Company classifies its debt investments as available-for-sale at the time of purchase and reevaluates such classification as of each balance sheet date. All debt investments are recorded at estimated fair value. Unrealized gains and losses on available-for-sale investments are included in accumulated other comprehensive income (loss), a component of stockholders' equity. If the Company does not expect to recover the entire amortized cost basis of the available-for-sale debt security, it considers the available-for-sale debt security to be impaired. For individual debt securities classified as available-for-sale and deemed impaired, the Company assesses whether such decline has resulted from a credit loss or other factors. Impairment relating to credit losses is recorded through a reserve, limited to the amount that the fair value is less than the amortized cost basis. Impairment deemed to be non-credit related is reported in other income (expense), net on the condensed consolidated statements of comprehensive loss. Realized gains and losses are determined based on the specific identification method and are reported in other income (expense), net on the condensed consolidated statements of comprehensive loss. Interest, amortization of premiums and accretion of discount on all debt investments classified as available-for-sale are also included as a component of other income (expense), net on the condensed consolidated statements of comprehensive loss. Based on the Company's assessment, no impairments for credit losses were recognized during each of the three months ended September 30, 2023 or 2022.

In 2022, the Company invested in a private financial technology investment fund, classified as an equity investment. Equity investments without a readily determinable fair value, where the Company has no influence over the operating and financial policies of the investee, are recorded at cost, less impairment and adjusted for subsequent observable price changes obtained from orderly transactions for identical or similar investments issued by the same investee. An impairment charge to current earnings is recorded when the cost of the investment exceeds its fair value and this condition is determined to be other-than-temporary. During the three months ended September 30, 2023, the Company determined there was a \$0.1 million other-than-temporary impairment on its equity investment. This equity investment had a carrying amount of \$0.1 million and \$0.2 million as of September 30, 2023 and December 31, 2022, respectively.

As of September 30, 2023 and December 31, 2022, the Company's cash was \$112.5 million and \$150.6 million, respectively.

A summary of the Company's cash equivalents and investments that are carried at fair value as of September 30, 2023 is as follows:

Cash Equivalents:	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Money market funds	\$ 43,539	\$ —	\$ —	\$ 43,539
Investments:	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Corporate bonds and commercial paper	\$ 40,647	\$ —	\$ (319)	\$ 40,328
Certificates of deposit	9,507	—	(37)	9,470
U.S. government securities	85,365	—	(454)	84,911
	<u>\$ 135,519</u>	<u>\$ —</u>	<u>\$ (810)</u>	<u>\$ 134,709</u>

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

A summary of the Company's cash equivalents and investments that are carried at fair value as of December 31, 2022 is as follows:

Cash Equivalents:	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Money market funds	\$ 20,998	\$ —	\$ —	\$ 20,998
Certificates of deposit	25,547	—	—	25,547
U.S. government securities	2,497	1	—	2,498
	<u>\$ 49,042</u>	<u>\$ 1</u>	<u>\$ —</u>	<u>\$ 49,043</u>
Investments:	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Corporate bonds and commercial paper	\$ 57,320	\$ 1	\$ (582)	\$ 56,739
Certificates of deposit	5,063	3	(50)	5,016
U.S. government securities	173,241	12	(1,481)	171,772
	<u>\$ 235,624</u>	<u>\$ 16</u>	<u>\$ (2,113)</u>	<u>\$ 233,527</u>

Investments may be sold or may settle 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 on the condensed consolidated balance sheets.

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

	September 30, 2023	December 31, 2022
Due within one year or less	\$ 115,511	\$ 171,831
Due after one year through five years	19,198	61,696
	<u>\$ 134,709</u>	<u>\$ 233,527</u>

The Company has certain available-for-sale debt investments in a gross unrealized loss position. The Company regularly reviews its debt investments for impairment resulting from credit loss using both qualitative and quantitative criteria, as necessary, based on the composition of the portfolio at period end. 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 or whether the Company has the intent to or it is more likely than not it will be required to sell the investment before recovery of the investment's amortized-cost basis. If the Company determines that impairment 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 on the condensed consolidated statements of comprehensive loss if the intent of the Company was to sell the investment before recovery. If the Company did not intend to sell, the portion of the write-down related to credit loss would be recorded to a reserve. Any portion not related to credit loss would be included in accumulated other comprehensive income (loss) in the condensed consolidated statements of 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 reserve for available-for-sale debt securities was zero as of September 30, 2023 and December 31, 2022.

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

The following table presents the fair values and the gross unrealized losses of these available-for-sale debt investments as of September 30, 2023, aggregated by investment category and the length of time that individual securities have been in a continuous loss position:

	Less than 12 months		12 months or greater	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Corporate bonds and commercial paper	\$ 23,371	\$ (135)	\$ 16,957	\$ (184)
Certificates of deposit	3,467	(21)	964	(16)
U.S. government securities	55,214	(196)	29,697	(258)
	<u>\$ 82,052</u>	<u>\$ (352)</u>	<u>\$ 47,618</u>	<u>\$ (458)</u>

The following table presents the fair values and the gross unrealized losses of these available-for-sale debt investments as of December 31, 2022, aggregated by investment category and the length of time that individual securities have been in a continuous loss position:

	Less than 12 months		12 months or greater	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Corporate bonds and commercial paper	\$ 45,094	\$ (449)	\$ 10,215	\$ (133)
Certificates of deposit	3,536	(50)	—	—
U.S. government securities	118,021	(893)	26,911	(588)
	<u>\$ 166,651</u>	<u>\$ (1,392)</u>	<u>\$ 37,126</u>	<u>\$ (721)</u>

6. Goodwill and Intangible Assets

The carrying amount of goodwill was \$512.9 million at both September 30, 2023 and December 31, 2022. Goodwill represents the excess purchase price over the fair value of net assets acquired. The annual impairment test was performed as of October 31, 2022. No impairment of goodwill was identified during 2022, and no impairment of goodwill was identified during the nine months ended September 30, 2023.

Intangible assets at September 30, 2023 and December 31, 2022 were as follows:

	As of September 30, 2023			As of December 31, 2022		
	Gross Amount	Accumulated Amortization	Net Carrying Amount	Gross Amount	Accumulated Amortization	Net Carrying Amount
Customer relationships	\$ 62,785	\$ (50,455)	\$ 12,330	\$ 62,785	\$ (40,981)	\$ 21,804
Non-compete agreements	13,200	(10,605)	2,595	13,275	(8,642)	4,633
Trademarks	19,870	(12,866)	7,004	19,870	(8,663)	11,207
Acquired technology	157,627	(92,551)	65,076	157,638	(74,910)	82,728
Capitalized software development costs	49,771	(8,422)	41,349	28,519	(3,210)	25,309
	<u>\$ 303,253</u>	<u>\$ (174,899)</u>	<u>\$ 128,354</u>	<u>\$ 282,087</u>	<u>\$ (136,406)</u>	<u>\$ 145,681</u>

The Company recorded intangible assets from various prior business combinations as well as capitalized software development costs. Intangible assets are amortized on a straight-line basis over their estimated useful lives, which range from two to seven years. Amortization expense included in cost of revenues on the condensed consolidated statements of comprehensive loss was \$8.0 million and \$6.5 million for the three months ended September 30, 2023 and 2022, respectively, and \$22.9 million and \$18.7 million for the nine months ended September 30, 2023 and 2022, respectively. Amortization expense included in operating expenses on the condensed consolidated statements of comprehensive loss was \$5.3 million and \$4.4 million for the three months ended September 30, 2023 and 2022, respectively, and \$15.8 million and \$13.3 million for the nine months ended September 30, 2023 and 2022, respectively.

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

The estimated future amortization expense related to intangible assets as of September 30, 2023 was as follows:

	<u>Amortization</u>
Year Ended December 31,	
2023 (October 1 to December 31)	\$ 13,141
2024	48,883
2025	31,040
2026	24,471
2027	8,536
Thereafter	2,283
Total amortization	<u>\$ 128,354</u>

7. Leases

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 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. Pursuant to the second of which the Company leases office space with lease terms of approximately ten years, with options to extend the leases on the second building from five to ten years. The Company also leases office space in other U.S. cities located in Nebraska, Iowa, North Carolina, Texas and Minnesota. Internationally, the Company leases offices in India, Australia and the United Kingdom. The Company believes its current facilities will be adequate for its needs for the foreseeable future.

Maturities of the Company's operating lease liabilities for lease terms in excess of one year at September 30, 2023 were as follows:

	<u>Operating Leases</u>
Year Ended December 31,	
2023 (October 1 to December 31)	\$ 3,032
2024	11,638
2025	10,638
2026	9,624
2027	8,369
Thereafter	23,408
Total lease payments	<u>\$ 66,709</u>
Less: imputed interest	<u>(10,748)</u>
Total operating lease liabilities	<u>\$ 55,961</u>

The operating lease liabilities include \$14.0 million in optional lease renewals where the Company is reasonably certain of exercising those options.

During the nine months ended September 30, 2023, the Company exited and made available for sublease certain leased office spaces and updated assessments of previously exited leased office spaces. As a result, the Company evaluated the recoverability of its right of use and other lease related assets and determined that their carrying values were not fully recoverable. The Company calculated the impairment by comparing the carrying amount of the asset group to its estimated fair value using a discounted cash flow model. As such, an impairment of \$1.9 million was recorded to right of use assets, \$0.2 million was recorded to property and equipment and an additional \$0.3 million was recorded to accrued liabilities and other long-term liabilities for expected expenses and fees associated with exiting the leased office space as of September 30, 2023. These charges were recorded within operating expenses on the condensed consolidated statements of comprehensive loss for the nine months ended September 30, 2023.

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

8. Commitments and Contingencies

The Company has non-cancelable contractual commitments related to the 2026 Notes and the 2025 Notes (each as defined below) as well as the related interest. The interest on the 2026 Notes is payable semi-annually on June 1 and December 1 of each year. The interest on the 2025 Notes is payable semi-annually on May 15 and November 15 of each year. The Company also has non-cancelable contractual commitments for certain third-party products, stadium sponsorship costs, co-location fees and other product costs. Several of these purchase commitments for third-party products contain both a contractual minimum obligation and a variable obligation based upon usage or other factors which can change on a monthly basis. 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 at September 30, 2023 were as follows:

	Contractual Commitments
Year Ended December 31,	
2023 (October 1 to December 31)	\$ 12,197
2024	49,366
2025	235,108
2026	321,638
2027	4,819
Thereafter	3,500
Total commitments	<u>\$ 626,628</u>

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.

Gain Contingencies

From time to time the Company may realize a gain contingency, however, recognition will not occur until cash is received.

Loss Contingencies

In the ordinary course of business, the Company is subject to loss contingencies that cover a range of matters. An estimated loss from a loss contingency, such as a legal proceeding or claim, is accrued if it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated.

9. Convertible Senior Notes

The following table presents details of the Company's convertible senior notes, which are further discussed below (original principal in thousands):

	Month Issued	Maturity Date ⁽¹⁾	Original Principal	Interest Rate per Annum	Conversion Rate for Each \$1,000 Principal ⁽²⁾	Initial Conversion Price per Share
2023 Notes	February 15, 2018	February 15, 2023	\$ 230,000	0.75 %	\$ 17.4292	\$ 57.38
2026 Notes	June 1, 2019	June 1, 2026	\$ 316,250	0.75 %	\$ 11.2851	\$ 88.61
2025 Notes	November 15, 2020	November 15, 2025	\$ 350,000	0.125 %	\$ 7.1355	\$ 140.14

⁽¹⁾ Unless earlier converted or repurchased in accordance with their terms prior to such date

⁽²⁾ Subject to adjustment upon the occurrence of certain specified events

As further defined and described below, the 2023 Notes, 2026 Notes and the 2025 Notes are collectively referred to as the Notes.

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

In February 2018, the Company issued \$230.0 million principal amount of convertible senior notes due in February 2023, or the 2023 Notes. Interest was payable semi-annually on February 15 and August 15 of each year, commencing on August 15, 2018. In November 2020, the Company exchanged \$181.9 million in aggregate principal amount of the 2023 Notes for \$210.7 million in aggregate principal of 2025 Notes (as described below) and 1.3 million shares of common stock. The Company did not receive any cash proceeds from the exchange. In exchange for issuing 2025 Notes pursuant to the exchange transaction, the Company received and cancelled the exchanged 2023 Notes. In May 2021, the Company repurchased \$37.1 million in aggregate principal amount of the 2023 Notes for \$63.7 million in cash. In February 2023, the Company repaid \$10.9 million of principal and the remaining accrued interest in cash to the debt holders to fully settle the 2023 Notes on the maturity date.

In June 2019, the Company issued \$316.3 million principal amount of convertible senior notes due in June 2026, or the 2026 Notes. Interest is payable semi-annually on June 1 and December 1 of each year, commencing on December 1, 2019.

In November 2020, the Company issued \$350.0 million principal amount of convertible senior notes due in November 2025, or the 2025 Notes. This was achieved by exchanging \$181.9 million principal amount of the 2023 Notes for \$210.7 million principal amount of the 2025 Notes and issuing an additional \$139.3 million of new notes. Interest is payable semi-annually on May 15 and November 15 of each year, commencing on May 15, 2021.

In March 2023, the Company repurchased \$12.3 million in aggregate principal amount of the 2026 Notes for \$10.7 million in cash and repurchased \$159.0 million in aggregate principal amount of the 2025 Notes for \$138.4 million in cash. The partial repurchase of the 2026 Notes and 2025 Notes resulted in a \$19.9 million gain on early debt extinguishment, of which \$1.8 million consisted of unamortized debt issuance costs. This gain was recorded within other income (expense) on the condensed consolidated statements of comprehensive loss. The Company may repurchase additional 2025 Notes and/or 2026 Notes from time to time through open market purchases, block trades, and/or privately negotiated transactions, in compliance with applicable securities laws and other legal requirements. The timing, volume, and nature of the repurchases will be determined by the Company based on the capital needs of the business, market conditions, applicable legal requirements, and other factors.

The 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 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 and future subsidiaries.

On or after June 5, 2023 or November 20, 2023 for the 2026 Notes and 2025 Notes, respectively, the Company may redeem for cash all or any portion of the 2026 or 2025 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 or 2025 Notes for redemption, holders may convert all or any portion of their 2026 or 2025 Notes at any time prior to the close of business on the scheduled trading day prior to the redemption date, even if the 2026 or 2025 Notes are not otherwise convertible at such time. After that time, the right to convert such 2026 or 2025 Notes will expire, unless the Company defaults in the payment of the redemption price, in which case a holder of 2026 or 2025 Notes may convert all or any portion of its 2026 or 2025 Notes until the redemption price has been paid or duly provided for.

On or after March 1, 2026 or August 15, 2025 for the 2026 Notes and 2025 Notes, respectively, holders may convert all or any portion of their 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 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 Notes.

Holders may convert their Notes at their option at any time prior to the close of business on the business day immediately preceding March 1, 2026 or August 15, 2025 for the 2026 Notes and 2025 Notes, respectively, only under the following circumstances:

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

- during any calendar quarter commencing after the calendar quarter ending on September 30, 2019 or March 30, 2021 (and only during such calendar quarter), for the 2026 Notes and 2025 Notes, respectively, 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 the 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 each of the Notes) occurs prior to the maturity date, holders of each of the 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 Notes, plus any accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

As of September 30, 2023, the 2026 Notes and 2025 Notes were not convertible.

The 2023 Notes, 2026 Notes and 2025 Notes consist of the following:

	As of September 30, 2023			As of December 31, 2022		
	2023 Notes	2026 Notes	2025 Notes	2023 Notes	2026 Notes	2025 Notes
Principal	\$ —	\$ 303,995	\$ 191,000	\$ 10,908	\$ 316,250	\$ 350,000
Unamortized debt issuance costs	—	(3,446)	(1,580)	(5)	(4,563)	(3,898)
Net carrying amount	\$ —	\$ 300,549	\$ 189,420	\$ 10,903	\$ 311,687	\$ 346,102

The following table sets forth total interest expense recognized related to the 2023, 2026 and 2025 Notes:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Contractual interest expense	\$ 630	\$ 722	\$ 1,963	\$ 2,168
Amortization of debt issuance costs	495	676	1,608	2,043
Total	\$ 1,125	\$ 1,398	\$ 3,571	\$ 4,211

Debt issuance costs are amortized on a straight-line basis, which approximates the effective interest method, to interest expense over the expected life of the Notes. As of September 30, 2023, the remaining period over which the debt issuance costs will be amortized for the 2026 Notes and 2025 Notes was 2.7 years and 2.1 years, respectively.

As of September 30, 2023, the if-converted value of the 2026 Notes and 2025 Notes did not exceed the principal amount. The if-converted values were determined based on the closing price of the Company's stock on September 30, 2023.

Capped Call Transactions

In connection with the issuance of the 2026 Notes and 2025 Notes, the Company entered into two separate capped call transactions with one or more counterparties, or the Capped Calls. The Capped Calls associated with the 2026 Notes have an initial strike price of \$88.6124 per share, subject to certain adjustments, which corresponds to the initial conversion price of the 2026 Notes. The Capped Calls associated with the 2025 Notes have an initial strike price of \$140.1443 per share, subject to certain adjustments, which corresponds to the initial conversion price of the 2025 Notes. The Capped Calls associated with the 2026 Notes have an initial cap price of \$139.00 per share. The Capped Calls associated with the 2025 Notes have an initial cap price of \$211.54 per share. The Capped Calls are expected to offset the potential dilution to the common stock upon any conversion of the 2026 Notes or 2025 Notes and/or offset any cash payments the Company is required to make in excess of the principal amount of the 2026 Notes or 2025 Notes 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

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

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 associated with the 2026 Notes was recorded as a reduction to additional paid-in capital. The cost of \$39.8 million incurred in connection with the Capped Calls associated with the 2025 Notes was recorded as a reduction to additional paid-in capital.

In March 2023, in connection with the partial repurchase of the 2026 Notes and 2025 Notes, the Company terminated the Capped Calls in a notional amount corresponding to the aggregate principal amount of the 2026 Notes and 2025 Notes that were repurchased. As a result of the termination of the related Capped Calls, the Company received cash payments of \$0.1 million. The proceeds were recorded as an increase to additional paid-in capital on the condensed consolidated balance sheets.

10. Stock-Based Compensation

In March 2014, the Company's board of directors approved the 2014 Equity Incentive Plan, or 2014 Plan. The 2014 Plan contained a provision that automatically increased 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. The 2014 Plan terminated on June 1, 2023, except with respect to the outstanding awards previously granted thereunder. As of June 1, 2023, there were 7,606 shares of common stock that were reserved for issuance pursuant to outstanding awards, assuming maximum performance, under the 2014 Plan.

In May 2023, the Company's stockholders approved the 2023 Equity Incentive Plan, or 2023 Plan, with an effective date of June 1, 2023. At time of approval, up to 14,045 shares of common stock were reserved for issuance under the 2023 Plan, all of which consisted of shares previously reserved for issuance under the 2014 Plan and any shares that would otherwise be returned to the 2014 Plan as a result of the forfeiture, repurchase or termination of unissued shares subject to options or restricted awards issued under that plan. The 2023 Plan is a successor to and continuation of the Company's 2014 Plan. As of September 30, 2023, 7,730 shares remain authorized and available for future issuance under the 2023 Plan, assuming attainment of maximum performance for any market or performance stock units.

In March 2014, the Company adopted its employee stock purchase plan, or ESPP. The plan was implemented starting January 3, 2022, pursuant to which certain participating domestic employees are able to purchase shares of the Company's common stock at a 15% discount of the lower of the market price at the beginning or end of the offering period. Offering periods commence on each June 1 and December 1. The Board provided for a share reserve with respect to the ESPP of 800 shares. The ESPP contains a provision that automatically increases the shares available for issuance under the plan on January 1 of each year through 2024, by an amount equal to the lesser of (a) 500 shares, (b) 1% of the number of shares issued and outstanding on the immediately preceding December 31, or (c) such other amount as may be determined by the Company's board of directors. During the nine months ended September 30, 2023, the Company issued 146 shares under the ESPP and as of September 30, 2023, 983 shares remain authorized and available for future issuance under the ESPP.

During the first quarter of 2023, a new form of performance stock units, or PSUs, were granted to the Company's executives under the 2014 Plan. The Company values PSUs at the closing market price on the date of grant. The minimum percentage of PSUs that can vest is 0%, with a maximum percentage of 200%. The vesting of PSUs is conditioned upon the achievement of certain internal targets and will vest over a two-year and three-year performance period. The Company recognizes compensation expense using the accelerated attribution method over the performance period, if it is probable that the performance condition will be achieved. Adjustments to compensation expense are made each reporting period based on changes in our estimate of the number of PSUs that are probable of vesting.

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

Stock-based compensation expense was recorded in the following cost and expense categories on the Company's condensed consolidated statements of comprehensive loss:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Cost of revenues	\$ 3,373	\$ 2,898	\$ 10,323	\$ 8,972
Sales and marketing	4,050	4,286	13,133	11,624
Research and development	3,908	3,661	11,691	10,363
General and administrative	9,778	5,919	24,672	17,341
Total stock-based compensation expense	\$ 21,109	\$ 16,764	\$ 59,819	\$ 48,300

11. Income Taxes

In accordance with applicable accounting guidance, the income tax expense for the nine months ended September 30, 2023 is based on the estimated annual effective tax rate for fiscal year 2023. The Company's provision for income taxes is based on estimated effective tax rates derived from an estimate of annual consolidated earnings before taxes, adjusted for nondeductible expenses, other permanent items, valuation allowances, and any applicable income tax credits.

The Company's provision for income taxes reflected an effective tax rate of approximately (4.5)% and (1.7)% for the three months ended September 30, 2023 and 2022, respectively, and (3.3)% and (2.9)% for the nine months ended September 30, 2023 and 2022, respectively. For the three and nine months ended September 30, 2023 and 2022, the Company's effective tax rate was lower than the U.S. federal statutory rate primarily due to its valuation allowance offsetting the benefits of losses. The Company's income tax expenses and benefits consist primarily of state current income tax expense, deferred income tax expense relating to the tax amortization of recently acquired goodwill and current income tax expense from foreign operations.

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. 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.

As of September 30, 2023, the Company had \$0.5 million in uncertain tax positions, including an insignificant amount of accrued interest, representing a decrease of \$0.5 million from the balance at December 31, 2022. Of this amount, \$0.5 million resulted in a state income tax benefit during the nine months ended September 30, 2023. The Company's tax years 2019 through 2022 generally remain open to examination by the major taxing jurisdictions to which the Company is subject. Operating losses generated in years prior to 2019 remain open to adjustment until the statute of limitations closes for the tax year in which the net operating losses are utilized.

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

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, 2022, which are included in our Annual Report on Form 10-K, filed with the SEC on February 21, 2023. In addition to historical condensed consolidated financial information, the following discussion contains forward-looking statements that reflect our plans, estimates and beliefs. Our actual results could differ materially from those discussed in the forward-looking statements. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this Quarterly Report on Form 10-Q, particularly in the sections titled "Risk Factors" and "Special Note Regarding Forward Looking Statements," which include a discussion of the uncertainties, risks and assumptions associated with these statements. The following discussion and analysis also includes a discussion of certain non-GAAP financial measures. For a description and reconciliation of the non-GAAP measures discussed in this section, see "Non-GAAP Financial Measures."

Overview

We are a leading provider of digital banking and lending solutions to financial institutions, financial technology companies, or FinTechs, alternative finance companies, or Alt-FIs, and other innovative companies, or Brands, wishing to incorporate banking into their customer engagement and servicing strategies. Our solutions transform the ways in which financial institutions and other financial services providers engage with account holders and end users, or End Users. Our solutions include a broad and deep portfolio of digital banking solutions; lending solutions; an open technology platform, the Q2 Innovation Studio, which is a portfolio of technologies and programs which can be leveraged to design, develop, and distribute innovative products, services, features, and integrations by enabling a partnership ecosystem on Q2's digital banking platform; and Helix, a comprehensive banking as a service, or BaaS, solution, which enables innovative companies to integrate banking products and services into their offerings. We purpose-build our platforms and solutions to enable success for our customers and technology partners by allowing them to digitize their operations and offerings, differentiate their digital brands, integrate traditional and emerging financial services, and ultimately, enhance their End-User acquisition, engagement and retention and improve their operational efficiencies and profitability.

Significant resources, personnel and expertise are required to effectively deliver and manage advanced digital banking and lending 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 offerings, 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 designed to comply with the stringent security and technical regulations applicable to financial institutions and financial services providers and to safeguard our customers' data and that of their End Users.

We have deep domain expertise in developing and delivering advanced digital banking and lending solutions designed to help our customers and technology partners compete in the complex and heavily regulated financial services industry. Over 18 years ago, Q2 began by providing digital banking solutions to regional and community financial institutions. We have rapidly grown since then through a combination of broad market acceptance of our award-winning solutions and relentless innovation, investment and acquisitions, while expanding our solutions to larger financial institutions. Our portfolio of solutions now spans digital banking, lending, profitability, onboarding, security, and we now serve account holders and borrowers across retail, small business and commercial segments, in addition to our open technology platform and BaaS offerings. While we remain focused on our founding mission of building stronger and more diverse communities by strengthening their financial institutions, we intend to draw on our broad solution portfolio, deep domain expertise and robust customer base to lead the transformation into a new frontier of financial services.

The financial services industry is undergoing tremendous change, influenced by three major factors. First, financial institutions demand now, more than ever, to digitize their operations and offerings. Second, FinTechs and the innovation they bring to the market are increasing End-User demand and expectations for new, more engaging and meaningful digital financial experiences. And third, major innovative Brands recognize that incorporating banking into their strategy is an opportunity to leverage the trust that their End Users place in them, driving deeper engagement with those End Users. These three forces continue to converge, creating what we believe is a new frontier in financial services in which financial institutions, FinTechs and Brands will have new roles and interdependencies, and which will require new technology, new partners, and new business models. We believe that lasting value creation in financial services will be achieved by those companies that can support and enhance the convergence of these forces. In addition, we have built a broad set of solutions that we believe equips us to accelerate and optimize this convergence – from digitizing the entire bank, to facilitating partnerships among financial institutions and FinTechs, to enabling Brands to incorporate banking into their products and customer relationships.

We deliver our solutions to most 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. Our digital banking platform customers have numerous End Users, and those End Users can represent one or more account holders registered to use one or more of our solutions on our digital banking platform. We generally price our digital banking platform solutions based on the number of solutions purchased by our customers and the number of Registered Users (as defined below) or commercial account holders utilizing our solutions. We generally earn additional revenues from our digital banking platform customers based on the number of transactions that End 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 End Users utilizing our solutions and as those users increase their number of transactions on our solutions. The structure and terms of our newer lending arrangements vary, but generally are also sold on a subscription basis through our direct sales organization, and the related revenues are recognized over the terms of the customer agreements. The structure and terms of our Helix arrangements with FinTechs and Brands vary, but typically involve relatively lower contracted minimum revenues and instead emphasize usage-based revenue, with such revenue recognized as it is incurred.

We have achieved significant growth since our inception. During each of the past 10 years, our average number of Registered Users per installed customer on our digital banking platform, or Installed Customer, has grown, and in many instances 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 Operating 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 that the investments we are making are positioning us to continue to realize revenue growth 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 and physical infrastructure requirements and the internal needs of our organization. Many of these investments will occur in advance of any associated benefit which at times may make it difficult to determine if we are effectively allocating our resources. If we are successful in growing our revenues by selling additional innovative solutions to existing customers and creating deeper End User engagement, we anticipate that greater economies of scale and increased operating leverage will improve our margins over the long term.

We sell our solutions primarily through our professional sales organization. While the financial institutions market is well-defined due to the regulatory classifications of those financial institutions, markets for FinTechs, Alt-FIs and Brands are broader and more difficult to define due to the changing number of providers in each market. Over the long term, we intend to continue to invest in additional sales representatives to identify and address opportunities in the financial institution, FinTech, Alt-FI and Brand markets across the U.S. and internationally and 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 of solutions. Additionally, over the past several years we have acquired or developed new solutions and additional functionality that serve a broader range of needs of financial institutions as well as the needs of FinTechs, Alt-FIs and Brands. Our integrated, end-to-end collection of solutions includes retail, small business and commercial banking, regulatory and compliance, digital lending, relationship pricing, open platform solutions, BaaS, digital account opening, account switching and data-driven sales enablement, spending insights and portfolio management solutions among others. We have also introduced the Q2 Innovation Studio, an API-based and SDK-based open technology platform that allows our financial institution customers and other technology partners to develop unique extensions of and integrations to our digital banking platform, allowing financial institutions to quickly and easily deploy customized experiences and the latest financial services expected by End Users.

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 solutions allowing them to provide modern, intuitive, advanced and regulatory-compliant digital banking and lending services. We also believe that the breadth and depth of our solution offerings and customer base, our open and flexible platform approach, our position as a leading provider of digital banking solutions to a large network of financial institutions, and our expertise in delivering new, advanced, innovative and regulatory-compliant digital banking and lending solutions uniquely position us to capitalize on the new frontier in financial services. We currently 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.

As our business grows, we intend to continue to invest in and grow our services and delivery organization to support our customers' needs, help them through their digital transformation, deliver our solutions in a timely and effective manner and maintain our strong reputation. 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.

Recent Events

Macroeconomic conditions and the residual impacts of the COVID-19 pandemic continue to change globally. We believe the combination of higher interest rates and inflation, supply chain disruptions, tight labor markets, wage inflation, pricing volatility for certain goods and services, geopolitical uncertainty, and other macroeconomic conditions puts pressure on corporate growth initiatives. Rising interest rates and recession fears, or an actual recession, also can reduce account holder demand for loans and can reduce the creditworthiness of existing borrowers, resulting in higher credit losses for financial institutions. Additionally, the failures of Silicon Valley Bank, Signature Bank and First Republic Bank have created market disruption and uncertainty for the financial services industry, in particular among regional and community financial institutions, or RCFIs. To date, a substantial majority of our revenues continue to result from sales of our digital banking platform to U.S. based RCFIs, which we define as federally insured banks and credit unions with less than \$100 billion in assets. Financial institutions, in particular RCFIs, have experienced, and may continue to experience outflows of deposits as account holders move their deposits to larger financial institutions with perceived better liquidity and risk management. The actions taken by such institutions to address potential liquidity concerns have resulted in certain institutions incurring substantial costs that have negatively impacted, and may continue to negatively impact, their profitability and could lead to further market instability or bank failures. The current market conditions have caused and may continue to cause financial institutions to reduce lending activity as they seek to increase their reserves to maintain better liquidity. While the U.S. government has taken measures to strengthen public confidence in the banking system and protect depositors, such steps may be insufficient to resolve the volatility in the financial markets and reduce the risk of additional bank failures.

Although we have a diversified customer base with no individual customer representing more than 4% of total revenue and our top 20 customers collectively accounting for less than 25% of total revenue, each for the year ended December 31, 2022, we have been, and may continue to be, impacted by the current macroeconomic environment and the challenges in the financial services industry. First Republic Bank, which was seized by regulators and immediately sold to JPMorgan Chase in May 2023, is a customer of ours, and total revenue recognized for the year ended December 31, 2022 from them consisted predominantly of revenue from professional services and in total represented approximately 2.5% of our total revenue for the year. Financial institutions have and may continue to respond to this challenging operating environment by reducing or delaying purchases of digital solutions and associated services. During the second half of 2022, we observed a decline in customer demand relative to our expectations earlier in the year for certain discretionary aspects of our solutions, namely professional services, which we believe may have been related to the challenging macroeconomic environment. During the second half of 2022, we also observed a decline in transactional and other revenue from our Helix and payment solutions, resulting from decreased usage. These effects have continued throughout 2023 to date, and we expect continued negative impacts on our

professional services for the remainder of the year and into 2024, or until the macroeconomic environment and the health of the financial services industry stabilizes or improves. Further, as a result of the continued macroeconomic uncertainty, starting in the second half of 2022, we began implementing certain measures to drive efficiencies in the organization and improve the scaling of expenses relative to revenue growth, which have continued in 2023 and we expect to continue into 2024 and beyond. The duration and severity of these general economic conditions and their long-term effects on us and our customers remain uncertain and difficult to predict. Refer to "Special Note Regarding Forward Looking Statements" above and "Risk Factors" below and in our other SEC filings for further discussion of the impact and possible future impacts of general macroeconomic uncertainty and the current challenges facing the financial services industry on our business.

Key Operating Measures

In addition to the U.S. 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 live implementations (or installations) of our digital banking platforms. 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 commercial account holders, buy more solutions from us, and as we add larger financial institutions 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 444, 448 and 450 Installed Customers on our digital banking platform as of December 31, 2022, 2021 and 2020, respectively. The year-over-year change in our Installed Customer count for 2022 was associated with an uptick in customer go-lives, offset by customer merger and acquisition activity and customer terminations.

Registered Users

We define a Registered User as an individual related to an account holder of an Installed Customer on our consumer digital banking platform who has registered to use one or more of our digital banking solutions and has current access to use those solutions as of the last day of the reporting period presented. We generally price our consumer digital banking platform solutions based on the number of Registered Users, while our commercial digital banking platform solutions are priced using various methodologies. As the number of Registered Users of our solutions increases, our revenues generally tend to 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 financial institutions 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, however this will be offset as our commercial digital banking platform represents a greater proportion of our Installed Customers solutions without the associated Registered User impact. The rate at which our customers add Registered Users varies significantly from period-to-period based on the timing of our implementations of new customers, the timing of registration of new End Users and customers performing inactive account clean-up. We add new Registered Users through both organic and inorganic growth from existing customers and from the addition of End Users from new Installed Customers. Our aggregate number of Registered Users is negatively impacted to the extent Installed Customers terminate all or a portion of their arrangements with us. Our Installed Customers had approximately 21.1 million, 19.2 million and 17.8 million Registered Users as of December 31, 2022, 2021 and 2020, respectively. Registered Users as of September 30, 2023 were 22.0 million compared to 20.9 million as of September 30, 2022.

Net 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 net revenue retention rate, which we previously referred to as our revenue retention rate. We calculate our net revenue retention rate as the total revenues in a calendar year, excluding any revenues from acquired customers 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 net 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; and 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 net 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 net revenue retention rate will be lower or higher, respectively. For example, in the first half of 2021, our implementations were weighted more heavily, and we experienced a lower net revenue retention rate in 2022 as a result. Our use of net revenue retention rate has limitations as an analytical tool, and investors should not consider it in isolation. Other companies in our industry may calculate net revenue retention rate differently, which reduces its usefulness as a comparative measure. Our net revenue retention rate was 110%, 119% and 122% for the years ended December 31, 2022, 2021 and 2020, respectively.

Annualized Recurring Revenue

In addition to Total Annual Recurring Revenue, which we previously referred to as ARR, beginning with the third quarter of 2023, we are reporting Subscription Annual Recurring Revenue, or Subscription ARR. We believe Subscription ARR, and Total Annual Recurring Revenue, or Total ARR, provide important information about our future revenue potential, our ability to acquire new clients, and our ability to maintain and expand our relationship with existing clients. We calculate Subscription ARR as the annualized value of all recurring subscription revenue recognized in the last month of the reporting period, with the exception of variable revenue in excess of contracted amounts for which we instead take the average monthly run rate of the trailing three months within that reporting period. Our Subscription ARR also includes the contracted minimum subscription amounts associated with all contracts in place at the end of the quarter for which revenue recognition has not yet commenced. Subscription revenues are defined within "Critical Accounting Policies and Significant Judgements and Estimates" in our Form 10-K. We calculate Total ARR as the annualized value of all recurring revenue recognized in the last month of the reporting period, with the exception of variable revenue in excess of contracted amounts for which we instead take the average monthly run rate of the trailing three months within that reporting period. Our Total ARR also includes the contracted minimums associated with all contracts in place at the end of the quarter for which revenue recognition has not yet commenced, and revenue generated from Premier Services. Premier Services revenue is generated from select established customer relationships where we have engaged with the customer for more tailored, premium professional services resulting in a deeper and ongoing level of engagement with them, which we deem to be recurring in nature. Total ARR does not include revenue from professional services or other sources of revenue that are not deemed to be recurring in nature. Subscription and Total ARR are not a forecast of future revenue, which can be impacted by contract start and end dates and renewal rates. Subscription and Total ARR should be viewed independently of revenue and deferred revenue as Subscription and Total ARR are operating metrics and are not intended to be combined with or replace these items. Our use of Subscription and Total ARR has limitations as an analytical tool, and investors should not consider it in isolation. Other companies in our industry may calculate Subscription ARR and Total ARR differently, which reduces their usefulness as comparative measures.

Our Subscription ARR was \$500.9 million, \$426.7 million and \$346.3 million for the years ended December 31, 2022, 2021 and 2020, respectively. Subscription ARR as of September 30, 2023 was \$547.0 million compared to \$477.9 million as of September 30, 2022. Our Total ARR was \$655.2 million, \$574.2 million and \$464.2 million for the years ended December 31, 2022, 2021 and 2020, respectively. Total ARR as of September 30, 2023 was \$693.6 million compared to \$633.7 million as of September 30, 2022.

Revenue Churn

We utilize revenue churn to monitor the satisfaction of our customers and evaluate the effectiveness of our business solutions and strategies. We define revenue churn as the amount of any monthly recurring revenue losses due to customer cancellations and downgrades, net of upgrades and replacements of existing solutions, during a year, divided by our monthly recurring revenue at the end of the prior 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. We had annual revenue churn of 6.3%, 5.4% and 5.9% for the years ended December 31, 2022, 2021 and 2020, respectively. Our use of revenue churn has limitations as an analytical tool, and investors should not consider it in isolation. Other companies in our industry may calculate revenue churn differently, which reduces its usefulness as a comparative measure.

Non-GAAP Financial Measures

In addition to financial measures prepared in accordance with GAAP, we use certain non-GAAP financial measures to clarify and enhance our understanding, and aid in the period-to-period comparison, of our performance. We believe that these non-GAAP financial measures provide supplemental information that is meaningful when assessing our operating performance because they exclude the impact of certain categories that our management and board of directors do not consider part of core operating results when assessing our operational performance, allocating resources, preparing annual budgets and determining compensation. Accordingly, these non-GAAP financial measures may provide insight to investors into the motivation and

decision-making of management in operating the business. Set forth in the tables below are the corresponding GAAP financial measures for each non-GAAP financial measure. Investors are encouraged to review the reconciliation of each of these non-GAAP financial measures to its most comparable GAAP financial measure included below. While we believe that these non-GAAP financial measures provide useful supplemental information, non-GAAP financial measures have limitations and should not be considered in isolation from, or as a substitute for, their most comparable GAAP measures. These non-GAAP financial measures are not prepared in accordance with GAAP, do not reflect a comprehensive system of accounting and may not be comparable to similarly titled measures of other companies due to potential differences in their financing and accounting methods, the book value of their assets, their capital structures, the method by which their assets were acquired and the manner in which they define non-GAAP measures. Items such as the deferred revenue reduction from purchase accounting, stock-based compensation, transaction-related costs, amortization of acquired technology, amortization of acquired intangible assets and lease and other restructuring charges can have a material impact on our GAAP financial results.

Non-GAAP Revenue

We define non-GAAP revenue as total revenue excluding the impact of purchase accounting. We monitor these measures to assess our performance because we believe our revenue growth rates would be understated without these adjustments. We believe presenting non-GAAP revenue aids in the comparability between periods and in assessing our overall operating performance.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Revenue:				
GAAP revenue	\$ 154,967	\$ 144,751	\$ 462,506	\$ 419,131
Deferred revenue reduction from purchase accounting	76	104	275	515
Total Non-GAAP revenue	<u>\$ 155,043</u>	<u>\$ 144,855</u>	<u>\$ 462,781</u>	<u>\$ 419,646</u>

Non-GAAP Operating Income

We provide non-GAAP operating income excluding such items as deferred revenue reduction from purchase accounting, stock-based compensation, transaction-related costs, amortization of acquired technology, amortization of acquired intangible assets and lease and other restructuring charges. We believe excluding these items is useful for the following reasons:

- *Deferred revenue reduction from purchase accounting.* We provide non-GAAP information that excludes the deferred revenue reduction from purchase accounting. We believe that the exclusion of deferred revenue reduction from purchase accounting allows users of our financial statements to better review and understand the historical and current results of our continuing operations.
- *Amortization of acquired technology and intangible assets.* We provide non-GAAP information that excludes expenses related to purchased technology and intangible assets associated with our acquisitions. We believe that eliminating these expenses from our non-GAAP measures is useful to investors, because the amortization of acquired technology and intangible assets can be inconsistent in amount and frequency and significantly impacted by the timing and magnitude of our acquisition transactions, which also vary in frequency from period to period. Accordingly, we analyze the performance of our operations in each period, both with and without such expenses.
- *Stock-based compensation.* We provide non-GAAP information that excludes expenses related to stock-based compensation. We believe that the exclusion of stock-based compensation expense provides for a better comparison of our operating results to prior periods and to our peer companies as the calculations of stock-based compensation vary from period to period and company to company due to different valuation methodologies, subjective assumptions and the variety of award types. Because of these unique characteristics of stock-based compensation, we exclude these expenses when analyzing the organization's business performance.
- *Transaction-related costs.* We exclude certain expense items resulting from our evaluation and completion of merger and acquisition and divestiture opportunities, such as related legal, accounting and consulting fees and retention expense. We consider these adjustments, to some extent, to be unpredictable and dependent on a significant number of factors that are outside of our control. Furthermore, transaction-related activities result in operating expenses that would not otherwise have been incurred by us in the normal course of our organic business operations. We believe that providing these non-GAAP measures that exclude transaction-related costs allows users of our financial statements to better review and understand the historical and current results of our continuing operations, and also facilitates comparisons to our historical results and results of less acquisitive peer companies, both with and without such adjustments.

- *Lease and other restructuring charges.* We provide non-GAAP information that excludes restructuring charges related to the estimated costs of exiting and terminating facility lease commitments, partially offset by anticipated sublease income, any related impairments of the right of use assets as they relate to corporate restructuring and exit activities, as well as severance and other related compensation charges associated with eliminating certain positions in connection with initiatives intended to align our resources to the portions of our business that we believe will drive the most long-term value. These charges are inconsistent in amount and are significantly impacted by the timing and nature of these events. Therefore, although we may incur these types of expenses in the future, we believe that eliminating these charges for purposes of calculating the non-GAAP financial measures facilitates a more meaningful evaluation of our operating performance and comparisons to our past operating performance.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
GAAP operating loss	\$ (23,172)	\$ (27,091)	\$ (68,040)	\$ (72,274)
Deferred revenue reduction from purchase accounting	76	104	275	515
Stock-based compensation	21,109	16,764	59,819	48,300
Transaction-related costs	3	352	24	882
Amortization of acquired technology	5,885	5,603	17,648	16,810
Amortization of acquired intangibles	5,250	4,422	15,764	13,266
Lease and other restructuring charges	3,435	5,494	8,137	6,031
Non-GAAP operating income	<u>\$ 12,586</u>	<u>\$ 5,648</u>	<u>\$ 33,627</u>	<u>\$ 13,530</u>

Adjusted EBITDA

We define adjusted EBITDA as net loss before depreciation, amortization, stock-based compensation, transaction-related costs, provision for income taxes, interest and other (income) expense, net, deferred revenue reduction from purchase accounting, (gain) loss on extinguishment of debt, and lease and other restructuring 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 with and 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 September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Reconciliation of net loss to adjusted EBITDA:				
Net loss	\$ (23,167)	\$ (27,791)	\$ (47,305)	\$ (76,572)
Deferred revenue reduction from purchase accounting	76	104	275	515
Stock-based compensation	21,109	16,764	59,819	48,300
Transaction-related costs	3	352	24	882
Depreciation and amortization	18,286	15,291	53,764	45,237
Lease and other restructuring charges	3,435	5,494	8,137	6,031
Provision for income taxes	1,006	469	1,503	2,173
(Gain) loss on extinguishment of debt	—	—	(19,869)	—
Interest and other (income) expense, net	(1,091)	137	(2,593)	1,975
Adjusted EBITDA	\$ 19,657	\$ 10,820	\$ 53,755	\$ 28,541

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 service providers, transactional revenue from bill-pay solutions, and revenues for professional services 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 other usage fees those users generate 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 our newer lending arrangements vary, but generally are also sold on a subscription basis through our direct sales organization, and the related revenues are recognized over the terms of the customer agreements. The structure and terms of our Helix arrangements with FinTechs and Brands vary, but typically involve relatively lower contracted minimum revenues and instead emphasize usage-based revenue, with such revenue recognized as it is incurred. 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. We recognize revenue for bill-pay and debit card related transaction services generated when End Users utilize debit cards integrated with our Helix products and other payment services in the month incurred based on actual or estimated transactions. 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 typically 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 are recorded in accounts receivable, and in revenues or deferred revenues, depending on when control of the service transfers to the customer.

We continue to monitor the impacts the rising interest rates, current inflationary environment, challenges in the financial services industry, a potential global macroeconomic slowdown, and any potential crisis impacting the banking industry may have on our business. During the second half of 2022, we observed a decline in customer demand relative to our expectations earlier in the year for certain discretionary aspects of our solutions, namely professional services, which we believe may have been related to the challenging macroeconomic environment. During the second half of 2022, we also observed a decline in transactional and other revenue from our Helix and payment solutions, resulting from decreased usage. These effects have continued throughout 2023 to date, and we expect continued negative impacts on our professional services for the remainder of the year and into 2024, or until the macroeconomic environment and the health of the financial services industry stabilizes or improves. In the three and nine months ended September 30, 2023, our subscription revenue growth was 11% and 15% year over year, respectively, and we expect it will continue to increase as a percentage of revenue contribution for the remainder of 2023. The recent challenging macroeconomic conditions and uncertainties in the financial services industry continue to be highly unpredictable and may continue to disrupt any seasonality trends that may otherwise typically be inherent in our historical operating results.

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 personnel performing implementation, customer support, data center and customer training activities. 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, amortization of certain software development costs, co-location facility costs and depreciation of our data center assets, debit card related pass-through fees, cloud-based hosting services, an allocation of general overhead costs, the amortization of acquired technology intangibles, 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 recoverable from future revenues. We amortize the costs for an implementation once revenue recognition commences, and we amortize those implementation costs to cost of revenues 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 for those employees who are directly associated with and who devote time to developing our software solutions on an individual product basis, including those related to programmers, software engineers and quality control teams, as well as third-party development costs. Software development costs are amortized to cost of revenues when products and enhancements are released or made available 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. Over the long term, 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 cost efficiencies realized in the business, the level and timing of implementation support activities, timing of capitalized software development costs, debit card related pass-through fees, and other related costs.

Operating Expenses

Operating expenses primarily 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. Over the long term, 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.

In prior years we have experienced a challenging hiring environment and competition for technical talent, resulting in incremental expenses related to the hiring process, including increased utilization of paid third parties to identify and hire talent. While the hiring environment became less challenging and we experienced reduced voluntary employee turnover in the second half of 2022 and in 2023, we may continue to experience inflation in the wages we have to pay to hire and retain qualified employees in future periods. Additionally, we believe employee preferences between remote, hybrid and onsite attendance are likely to change over time, and we will continue to adapt our physical facilities and IT infrastructure to accommodate a safe and successful work experience for our onsite, hybrid and remote employees. Further, as a result of the continued macroeconomic uncertainty, starting in the second half of 2022, we began implementing certain measures to drive efficiencies in the organization and improve the scaling of expenses relative to revenue growth, which have continued in 2023 and we expect to continue into 2024 and beyond.

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 events, 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 impacted by the timing of significant marketing programs such as our return to hosting our annual client conference in person, which took place in May 2023.

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.

Certain research and development costs that are related to our software development, which include salaries and other personnel-related costs, comprised of employee benefits, stock-based compensation and bonuses attributed to programmers, software engineers and quality control teams working on our software solutions, are capitalized and included in intangible assets, net on the condensed consolidated balance sheets. We intend to continue our investments in our software development teams and the associated technology in order to serve our customers and support our growth.

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, travel and other corporate expenses. 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 regulated, 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.

Transaction-Related Costs

Transaction-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, and various legal and professional service expenses incurred in connection with merger and acquisition and divestiture related matters, 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.

Lease and other restructuring charges

Lease and other restructuring charges include costs related to the early vacating of certain facilities, any related impairment of the right of use assets and ongoing expenses of other vacated facilities, partially offset by anticipated sublease income from the associated facilities, as well as severance and other related compensation charges associated with eliminating certain positions in connection with initiatives intended to align our resources to the portions of our business that we believe will drive the most long-term value.

Total Other Income (Expense), Net

Total other income (expense), net, consists primarily of interest income and expense, other non-operating income and expense, loss on disposal of long-lived assets, foreign currency translation adjustment and gain (loss) on extinguishment of debt. We earn interest income on our cash, cash equivalents and investments. Interest expense consists primarily of the interest from the amortization of debt issuance costs and coupon interest attributable to our convertible notes issued in February 2018, or 2023 Notes, our convertible notes issued in June 2019, or 2026 Notes, and our convertible notes issued in November 2020, or 2025 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.

Provision for Income Taxes

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

Results of Operations

The following table sets forth our condensed results of operations data for each of the periods indicated (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Revenues ⁽¹⁾	\$ 154,967	\$ 144,751	\$ 462,506	\$ 419,131
Cost of revenues ⁽²⁾	80,834	77,895	241,248	228,988
Gross profit	74,133	66,856	221,258	190,143
Operating expenses:				
Sales and marketing	26,123	27,966	82,968	79,709
Research and development	34,542	33,099	103,063	96,062
General and administrative	28,084	22,614	79,903	66,467
Transaction-related costs	3	352	24	882
Amortization of acquired intangibles	5,250	4,422	15,764	13,266
Lease and other restructuring charges	3,303	5,494	7,576	6,031
Total operating expenses	97,305	93,947	289,298	262,417
Loss from operations	(23,172)	(27,091)	(68,040)	(72,274)
Total other income (expense), net ⁽³⁾	1,011	(231)	22,238	(2,125)
Loss before income taxes	(22,161)	(27,322)	(45,802)	(74,399)
Provision for income taxes	(1,006)	(469)	(1,503)	(2,173)
Net loss	\$ (23,167)	\$ (27,791)	\$ (47,305)	\$ (76,572)

⁽¹⁾ Includes deferred revenue reduction from purchase accounting of \$0.1 million for each of the three months ended September 30, 2023 and 2022, and \$0.3 million and \$0.5 million for the nine months ended September 30, 2023 and 2022, respectively.

⁽²⁾ Includes amortization of acquired technology of \$5.9 million and \$5.6 million for the three months ended September 30, 2023 and 2022, respectively, and \$17.6 million and \$16.8 million for the nine months ended September 30, 2023 and 2022, respectively.

⁽³⁾ Includes a gain of \$19.9 million related to the early extinguishment of a portion of our 2026 Notes and 2025 Notes for the nine months ended September 30, 2023.

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Revenues ⁽¹⁾	100.0 %	100.0 %	100.0 %	100.0 %
Cost of revenues ⁽²⁾	52.2	53.8	52.2	54.6
Gross profit	47.8	46.2	47.8	45.4
Operating expenses:				
Sales and marketing	16.9	19.3	17.9	19.0
Research and development	22.3	22.9	22.3	22.9
General and administrative	18.1	15.6	17.3	15.9
Transaction-related costs	—	0.2	—	0.2
Amortization of acquired intangibles	3.4	3.1	3.4	3.2
Lease and other restructuring charges	2.1	3.8	1.6	1.4
Total operating expenses	62.8	64.9	62.6	62.6
Loss from operations	(15.0)	(18.7)	(14.7)	(17.2)
Total other income (expense), net ⁽³⁾	0.7	(0.2)	4.8	(0.5)
Loss before income taxes	(14.3)	(18.9)	(9.9)	(17.8)
Provision for income taxes	(0.6)	(0.3)	(0.3)	(0.5)
Net loss	(14.9)%	(19.2)%	(10.2)%	(18.3)%

⁽¹⁾ Includes deferred revenue reduction from purchase accounting of 0.0% and 0.1% for the three months ended September 30, 2023 and 2022, respectively, and 0.1% for each of the nine months ended September 30, 2023 and 2022.

⁽²⁾ Includes amortization of acquired technology of 3.8% and 3.9% for the three months ended September 30, 2023 and 2022, respectively, and 3.8% and 4.0% for the nine months ended September 30, 2023 and 2022, respectively.

⁽³⁾ Includes an increase of 4.3% related to the early extinguishment of a portion of our 2026 Notes and 2025 Notes for the nine months ended September 30, 2023.

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

Comparison of the Three and Nine Months Ended September 30, 2023 and 2022

Revenues

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

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2023	2022	\$	(%)	2023	2022	\$	(%)
Revenues	\$ 154,967	\$ 144,751	\$ 10,216	7.1 %	\$ 462,506	\$ 419,131	\$ 43,375	10.3 %

Three Months Ended September 30, 2023 Compared to Three Months Ended September 30, 2022. Revenues increased by \$10.2 million, or 7.1%, from \$144.8 million for the three months ended September 30, 2022 to \$155.0 million for the three months ended September 30, 2023. This increase in revenue was primarily attributable to a \$12.2 million increase in subscription revenue from the sale of additional solutions to new and existing customers and growth in Registered Users from new and existing customers and a \$0.3 million increase in transaction revenue, partially offset by a \$2.3 million decrease in services and other revenue from declines in professional and discretionary services and pass-through revenue related to our Helix business.

Nine Months Ended September 30, 2023 Compared to Nine Months Ended September 30, 2022. Revenues increased by \$43.4 million, or 10.3%, from \$419.1 million for the nine months ended September 30, 2022 to \$462.5 million for the nine months ended September 30, 2023. This increase in revenue was primarily attributable to a \$46.0 million increase in subscription revenue from the sale of additional solutions to new and existing customers and growth in Registered Users from new and existing customers, partially offset by a \$1.5 million decrease in services and other revenue from declines in professional and discretionary services and pass-through revenue related to our Helix business and a \$1.2 million decrease in transaction revenue from payment solutions.

Cost of Revenues

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

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2023	2022	\$	(%)	2023	2022	\$	(%)
Cost of revenues	\$ 80,834	\$ 77,895	\$ 2,939	3.8 %	\$ 241,248	\$ 228,988	\$ 12,260	5.4 %
Percentage of revenues	52.2 %	53.8 %			52.2 %	54.6 %		

Three Months Ended September 30, 2023 Compared to Three Months Ended September 30, 2022. Cost of revenues increased by \$2.9 million, or 3.8%, from \$77.9 million for the three months ended September 30, 2022 to \$80.8 million for the three months ended September 30, 2023. This increase was primarily attributable to a \$1.9 million increase from the amortization of capitalized software development and capitalized implementation services, a \$1.8 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 \$0.3 million increase in personnel costs, including an increase in the number of personnel who provide implementation and customer support services and maintain our data centers and other technical infrastructure and a \$0.3 million increase from amortization of acquired customer technology resulting from the Sensibill business acquired in the fourth quarter of 2022, partially offset by a \$1.3 million decrease in pass-through fees.

Nine Months Ended September 30, 2023 Compared to Nine Months Ended September 30, 2022. Cost of revenues increased by \$12.3 million, or 5.4%, from \$229.0 million for the nine months ended September 30, 2022 to \$241.2 million for the nine months ended September 30, 2023. This increase was primarily attributable to a \$5.0 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 \$4.5 million increase from the amortization of capitalized software development and capitalized implementation services, a \$2.6 million increase in personnel costs, including an increase in the number of personnel who provide implementation and customer support services and maintain our data centers and other technical infrastructure, a \$0.9 million increase from amortization of acquired customer technology resulting from the Sensibill business acquired in the fourth quarter of 2022 and a \$0.3 million increase in third-party costs related to intellectual property included in our solutions, as well as transaction processing costs incurred as a result of the increase in End Users from new and existing customers, partially offset by a \$1.0 million decrease in overhead costs and other discretionary expenses.

We continue to invest in personnel, business process improvement, third-party partners for intellectual property and transactional processing in our solutions 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, process improvement, software development and systems infrastructure, and we expect such expenses to decline as a percentage of revenue as our operations continue to scale and revenues grow.

Operating Expenses

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

Sales and Marketing

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2023	2022	\$	(%)	2023	2022	\$	(%)
Sales and marketing	\$ 26,123	\$ 27,966	\$ (1,843)	(6.6)%	\$ 82,968	\$ 79,709	\$ 3,259	4.1 %
Percentage of revenues	16.9 %	19.3 %			17.9 %	19.0 %		

Three Months Ended September 30, 2023 Compared to Three Months Ended September 30, 2022. Sales and marketing expenses decreased by \$1.8 million, or 6.6%, from \$28.0 million for the three months ended September 30, 2022 to \$26.1 million for the three months ended September 30, 2023. This decrease was primarily attributable to a \$1.3 million decrease in personnel costs due to measures taken to drive efficiencies in the organization and improve the scaling of expenses relative to revenue growth, a \$0.3 million decrease in marketing activities and a \$0.2 million decrease in overhead costs.

Nine Months Ended September 30, 2023 Compared to Nine Months Ended September 30, 2022. Sales and marketing expenses increased by \$3.3 million, or 4.1%, from \$79.7 million for the nine months ended September 30, 2022 to \$83.0 million for the nine months ended September 30, 2023. This increase was primarily attributable to a \$2.9 million increase in personnel costs related to our sales and marketing organizations supporting current and projected bookings and revenue growth and a \$0.5 million increase in marketing activities, primarily related to our in-person annual client conference.

We anticipate that sales and marketing expenses will continue to increase in absolute dollars in the long-term as we continue to support our revenue growth and increase marketing spend to attract new customers, retain and grow existing customers, build brand awareness, and as we continue to return to in-person sales formats and experiences for future user conferences, including our annual client conference typically held during the second quarter. While we anticipate sales and marketing expenses as a percentage of revenue may fluctuate on a near-term basis, we expect such expenses to decline as a percentage of our revenues over the long-term as our revenues grow and we realize cost efficiencies in the business.

Research and Development

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2023	2022	\$	(%)	2023	2022	\$	(%)
Research and development	\$ 34,542	\$ 33,099	\$ 1,443	4.4 %	\$ 103,063	\$ 96,062	\$ 7,001	7.3 %
Percentage of revenues	22.3 %	22.9 %			22.3 %	22.9 %		

Three Months Ended September 30, 2023 Compared to Three Months Ended September 30, 2022. Research and development expenses increased by \$1.4 million, or 4.4%, from \$33.1 million for the three months ended September 30, 2022 to \$34.5 million for the three months ended September 30, 2023. This increase was primarily attributable to a \$3.1 million increase in personnel costs as a result of the growth in our research and development organization to support continued enhancements to our solutions, partially offset by a \$1.9 million decrease as a result of increased capitalized software development costs.

Nine Months Ended September 30, 2023 Compared to Nine Months Ended September 30, 2022. Research and development expenses increased by \$7.0 million, or 7.3%, from \$96.1 million for the nine months ended September 30, 2022 to \$103.1 million for the nine months ended September 30, 2023. This increase was primarily attributable to a \$13.0 million increase in personnel costs as a result of the growth in our research and development organization to support continued enhancements to our solutions and a \$0.5 million increase in travel-related expenses, partially offset by a \$6.5 million decrease as a result of increased capitalized software development costs.

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, as we believe existing customers will have an increased focus on maintaining and improving their digital offerings. While we anticipate research and development expenses as a percentage of revenue may fluctuate on a near-term basis, we expect such expenses to decline as a percentage of our revenues over the long-term as our revenues grow and we realize cost efficiencies in the business.

General and Administrative

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2023	2022	\$	(%)	2023	2022	\$	(%)
General and administrative	\$ 28,084	\$ 22,614	\$ 5,470	24.2 %	\$ 79,903	\$ 66,467	\$ 13,436	20.2 %
Percentage of revenues	18.1 %	15.6 %			17.3 %	15.9 %		

Three Months Ended September 30, 2023 Compared to Three Months Ended September 30, 2022. General and administrative expenses increased by \$5.5 million, or 24.2%, from \$22.6 million for the three months ended September 30, 2022 to \$28.1 million for the three months ended September 30, 2023. The increase in general and administrative expenses was primarily attributable to a \$4.1 million increase in personnel costs, including stock-based compensation, to support the growth of our business, a \$1.2 million increase in charitable contributions and a \$0.3 million increase in professional services, including third-party legal fees.

Nine Months Ended September 30, 2023 Compared to Nine Months Ended September 30, 2022. General and administrative expenses increased by \$13.4 million, or 20.2%, from \$66.5 million for the nine months ended September 30, 2022 to \$79.9 million for the nine months ended September 30, 2023. The increase in general and administrative expenses was primarily attributable to an \$8.7 million increase in personnel costs, including stock-based compensation, to support the growth of our business, a \$4.6 million increase in professional services, including third-party legal fees and a \$1.2 million increase in charitable contributions, partially offset by a \$0.9 million decrease in bad debt expense.

General and administrative expenses consist primarily of salaries, stock-based compensation and other personnel-related costs of our administrative, finance and accounting, information systems, legal and human resources employees. General and administrative expenses also include costs to comply with regulations governing public companies and financial institutions, costs of directors' and officers' liability insurance, third-party legal fees, investor relations activities and costs to comply with Section 404 of the Sarbanes-Oxley Act, or SOX. Over the long term, we anticipate that general and administrative expenses will continue to increase in absolute dollars 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 the longer term as our revenues grow and we realize cost efficiencies in the business.

Transaction-Related Costs

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2023	2022	\$	(%)	2023	2022	\$	(%)
Transaction-related costs	\$ 3	\$ 352	\$ (349)	(99.1)%	\$ 24	\$ 882	\$ (858)	(97.3)%
Percentage of revenues	— %	0.2 %			— %	0.2 %		

Three Months Ended September 30, 2023 Compared to Three Months Ended September 30, 2022. Transaction-related costs decreased \$0.3 million, or 99.1% from \$0.4 million for the three months ended September 30, 2022 to \$3.0 thousand for the three months ended September 30, 2023. Transaction-related costs consisted of various legal and professional expenses incurred in connection with merger and acquisition and divestiture activities.

Nine Months Ended September 30, 2023 Compared to Nine Months Ended September 30, 2022. Transaction-related costs decreased by \$0.9 million, or 97.3%, from \$0.9 million for the nine months ended September 30, 2022 to \$0.02 million for the nine months ended September 30, 2023. Transaction-related costs consisted of various legal and professional expenses incurred in connection with merger and acquisition and divestiture activities.

Amortization of Acquired Intangibles

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2023	2022	\$	(%)	2023	2022	\$	(%)
Amortization of acquired intangibles	\$ 5,250	\$ 4,422	\$ 828	18.7 %	\$ 15,764	\$ 13,266	\$ 2,498	18.8 %
Percentage of revenues	3.4 %	3.1 %			3.4 %	3.2 %		

Three Months Ended September 30, 2023 Compared to Three Months Ended September 30, 2022. Amortization of acquired intangibles increased by \$0.8 million, or 18.7%, from \$4.4 million for the three months ended September 30, 2022 to \$5.3 million for the three months ended September 30, 2023. The acquired intangible assets are related to previously disclosed business combinations. The increase in amortization is related to the update of estimated remaining useful lives of previously acquired trademarks that occurred during the fourth quarter of 2022.

Nine Months Ended September 30, 2023 Compared to Nine Months Ended September 30, 2022. Amortization of acquired intangibles increased by \$2.5 million, or 18.8%, from \$13.3 million for the nine months ended September 30, 2022 to \$15.8 million for the nine months ended September 30, 2023. The acquired intangible assets are related to previously disclosed business combinations. The increase in amortization is related to the update of estimated remaining useful lives of previously acquired trademarks that occurred during the fourth quarter of 2022.

Lease and Other Restructuring Charges

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2023	2022	\$	(%)	2023	2022	\$	(%)
Lease and other restructuring charges	\$ 3,303	\$ 5,494	\$ (2,191)	(39.9)%	\$ 7,576	\$ 6,031	\$ 1,545	25.6 %
Percentage of revenues	2.1 %	3.8 %			1.6 %	1.4 %		

Three Months Ended September 30, 2023 Compared to Three Months Ended September 30, 2022. Lease and other restructuring charges decreased by \$2.2 million, or 39.9%, from \$5.5 million for the three months ended September 30, 2022 to \$3.3 million for the three months ended September 30, 2023. The decrease in lease and other restructuring charges was primarily attributable to a net \$2.1 million decrease related to the vacating of a facility in Texas, including the associated impairment of the right of use asset, during the three months ended September 30, 2022, and updated assessments and ongoing expenses of previously vacated facilities, partially offset by a \$0.2 million increase in severance and other related compensation charges associated with eliminating certain positions in connection with initiatives intended to align our resources to the portions of our business that we believe will drive the most long-term value.

Nine Months Ended September 30, 2023 Compared to Nine Months Ended September 30, 2022. Lease and other restructuring charges increased by \$1.5 million or 25.6%, from \$6.0 million for the nine months ended September 30, 2022 to \$7.6 million for the nine months ended September 30, 2023. The increase in lease and other restructuring charges was primarily attributable to a \$1.5 million increase in severance and other related compensation charges associated with eliminating certain positions in connection with initiatives intended to align our resources to the portions of our business that we believe will drive the most long-term value.

Total Other Income (Expense), Net

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2023	2022	\$	(%)	2023	2022	\$	(%)
Total other income (expense), net	\$ 1,011	\$ (231)	\$ 1,242	537.7 %	\$ 22,238	\$ (2,125)	\$ 24,363	1,146.5 %
Percentage of revenues	0.7 %	(0.2)%			4.8 %	(0.5)%		

Three Months Ended September 30, 2023 Compared to Three Months Ended September 30, 2022. Total other income (expense), net represented a net income of \$1.0 million for the three months ended September 30, 2023 compared to a net expense of \$0.2 million for the three months ended September 30, 2022. The change was primarily due to an increase in income from cash and investments.

Nine Months Ended September 30, 2023 Compared to Nine Months Ended September 30, 2022. Total other income (expense), net represented a net income of \$22.2 million for the nine months ended September 30, 2023 compared to a net expense of \$2.1 million for the nine months ended September 30, 2022. The change was primarily due to a \$19.9 million gain from the partial repurchase of the 2026 Notes and the 2025 Notes and a \$5.0 million increase in income from cash and investments, partially offset by a \$0.7 million decrease in other income related to a favorable settlement of an ordinary course dispute recognized during the nine months ended September 30, 2022.

Provision for Income Taxes

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2023	2022	\$	(%)	2023	2022	\$	(%)
Provision for income taxes	\$ (1,006)	\$ (469)	\$ (537)	114.5 %	\$ (1,503)	\$ (2,173)	\$ 670	(30.8)%
Percentage of revenues	(0.6)%	(0.3)%			(0.3)%	(0.5)%		

Three Months Ended September 30, 2023 Compared to Three Months Ended September 30, 2022. Total provision for income taxes represented an expense of \$1.0 million for the three months ended September 30, 2023 compared to an expense of \$0.5 million for the three months ended September 30, 2022. As a result of our current net operating loss position, income tax expense for the three months ended September 30, 2023 consisted primarily of \$0.5 million in tax amortization of recently acquired goodwill, \$0.3 million in foreign income tax and \$0.2 million in state income tax. The income tax expense for the three months ended September 30, 2022 consisted primarily of \$0.2 million in federal income tax relating to the tax amortization of recently acquired goodwill, \$0.2 million in foreign income tax and \$0.1 million in state income tax.

Nine Months Ended September 30, 2023 Compared to Nine Months Ended September 30, 2022. Total provision for income taxes represented an expense of \$1.5 million for the nine months ended September 30, 2023 compared to an expense of \$2.2 million for the nine months ended September 30, 2022. As a result of our current net operating loss position, income tax expense for the nine months ended September 30, 2023 consisted primarily of \$0.7 million in foreign income tax, \$0.6 million in tax amortization of recently acquired goodwill and \$0.2 million in state income tax. The income tax expense for the nine months ended September 30, 2022 consisted primarily of \$1.1 million in state income tax which includes \$0.6 million in federal income tax relating to tax amortization of recently acquired goodwill, \$0.5 million related to uncertain tax positions and \$0.5 million in foreign income tax.

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 to grow our business. The timing of our implementation activities and corresponding revenues from new customers are subject to fluctuations based on the timing of our sales. Historically, sales have tended to be lower in the first half of the year, 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.

We continue to monitor the impacts the current inflationary environment, potential global macroeconomic slowdown and recent challenges in the financial services industry may have on our business. The recent challenging macroeconomic conditions and uncertainties in the financial services industry continue to be highly unpredictable and may continue to disrupt any seasonality trends that may otherwise typically be inherent in our historical operating results.

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 from our initial public offering in March 2014, additional registered common stock offerings, including our June 2019 and May 2020 common stock offerings, our February 2018 convertible note offering, our June 2019 convertible note offering, our November 2020 convertible note offering, and cash flows from operations. As of September 30, 2023, our principal sources of liquidity were cash, cash equivalents and investments of \$290.8 million. Based upon our current levels of operations, we believe that our cash flow from operations along with our other sources of liquidity are adequate to meet our cash requirements for the next twelve months. However, if we determine the need for additional short-term liquidity, there is no assurance that such financing, if pursued, would be adequate or available on terms acceptable to us.

Cash Flows

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

	Nine Months Ended September 30,	
	2023	2022
Net cash provided by (used in):		
Operating activities	\$ 33,715	\$ (7,307)
Investing activities	78,669	(125,523)
Financing activities	(156,087)	3,254
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(137)	(939)
Net decrease in cash, cash equivalents, and restricted cash	<u>\$ (43,840)</u>	<u>\$ (130,515)</u>

Cash Flows from Operating Activities

Our operating activities are primarily influenced by net loss less non-cash items, the amount and timing of customer receipts and vendor payments 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 nine months ended September 30, 2023, our net cash and cash equivalents provided by operating activities was \$33.7 million, which consisted of a net loss of \$47.3 million and non-cash adjustments of \$116.3 million, partially offset by cash outflows from changes in operating assets and liabilities of \$35.3 million. The primary drivers of cash outflows in operating assets and liabilities were a \$24.5 million increase in deferred solution and implementation costs from both new customers and existing customer expansions, a \$7.1 million decrease in other long-term liabilities and a \$5.5 million decrease in deferred revenue due to the recognition of revenue from payments in prior periods exceeding receipts from customers during the period. Non-cash adjustments primarily consisted of stock-based compensation, depreciation and amortization, amortization of deferred implementation and deferred solution and other costs, amortization of debt issuance costs and lease impairments, partially offset by a gain on extinguishment of debt and amortization of premiums and discounts on investments.

For the nine months ended September 30, 2022, our net cash and cash equivalents used in operating activities was \$7.3 million, which consisted of a net loss of \$76.6 million and cash outflows from changes in operating assets and liabilities of \$53.9 million, partially offset by non-cash adjustments of \$123.1 million. The primary drivers of the changes in operating assets and liabilities were a \$15.0 million decrease in accounts payable and accrued liabilities due to timing of payments in support of our expanding customer base and related growth in our technical infrastructure and payment of annual bonuses during the first quarter and a \$18.0 million increase in deferred solution and implementation costs due to our increased customer growth and new and existing customers undergoing implementations during the period. Non-cash adjustments primarily consisted of stock-based compensation, depreciation and amortization, amortization of deferred implementation and deferred solution, lease and other restructuring charges and amortization of debt issuance costs.

Cash Flows from Investing Activities

Our investing activities have consisted primarily of purchases and maturities of investments, acquisitions of businesses, purchases of property and equipment to support our growth and costs incurred for the development of capitalized software. 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 nine months ended September 30, 2023, our net cash provided by investing activities was \$78.7 million, consisting of \$179.4 million from maturities of investments, partially offset by \$76.8 million from purchases of investments, \$19.3 million from capitalized software development costs and \$4.6 million for the purchase of property and equipment.

For the nine months ended September 30, 2022, our net cash used in investing activities was \$125.5 million, consisting of \$214.1 million from purchases of investments, \$15.7 million from capitalized software development costs and \$8.9 million for the purchase of property and equipment, partially offset by \$113.2 million from maturities of investments.

Cash Flows from Financing Activities

For the nine months ended September 30, 2023, our net cash used in financing activities was \$156.1 million, primarily consisting of \$149.6 million from payments for the partial repurchases of the 2026 Notes and 2025 Notes and \$10.9 million from payment of the 2023 Notes which matured in February 2023, partially offset by \$4.3 million in cash received from exercises of stock options and contributions to our Employee Stock Purchase Plan, or ESPP, to purchase our common stock.

For the nine months ended September 30, 2022 our net cash provided by financing activities consisted solely of cash received from exercises of stock options and contributions to our ESPP to purchase our common stock of \$3.3 million.

Contractual Obligations and Commitments

Our principal commitments consist of the 2026 Notes, 2025 Notes, non-cancelable operating leases related to our facilities, minimum purchase commitments for sponsorship obligations, third-party products, co-location fees and other product costs. Our obligations under our convertible senior notes are described in Note 9 to our Condensed Consolidated Financial Statements included in this Quarterly Report on Form 10-Q. Information regarding our non-cancellable lease and other purchase commitments as of the nine months ended September 30, 2023 can be found in Note 7 and Note 8 to our Condensed Consolidated Financial Statements included in this Quarterly Report on Form 10-Q.

Recent Accounting Pronouncements

See Note 2 - Summary of Significant Accounting Policies contained in the Notes to Condensed Consolidated Financial Statements included in this report, regarding the impact of certain recent accounting pronouncements.

Critical Accounting Policies and Significant Judgements and Estimates

The preparation of our interim unaudited condensed consolidated financial statements in accordance with GAAP requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, revenues and expenses and the related disclosures of contingent assets and liabilities in our interim unaudited condensed consolidated financial statements and accompanying notes. In accordance with GAAP, we base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances. 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 might differ from these estimates under different assumptions or conditions.

Our significant accounting policies are discussed in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" under the heading "Critical Accounting Policies and Significant Judgments and Estimates" in our Form 10-K. There were no material changes to our significant accounting policies.

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 typically include U.S. government securities, 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. If overall interest rates fell by 10% in 2023 or 2022, our interest income would not have been materially affected. As of September 30, 2023, we had an outstanding principal amount of \$304.0 million of 2026 Notes with a fixed annual interest rate of 0.75% and an outstanding principal amount of \$191.0 million of 2025 Notes with a fixed annual interest rate of 0.125%.

Foreign Currency Risk

As of September 30, 2023, our most significant currency exposures were the Indian rupee, Canadian dollar, British pound, and Australian dollar. As of September 30, 2023, we had operating subsidiaries in India, Canada, the United Kingdom, Australia and Mexico. 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 matter 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. Nonetheless, 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 September 30, 2023, 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 a variety of risks and uncertainties, including those 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. Our principal risks include risks associated with:

- *our ability to manage our growth;*
- *the challenging macroeconomic environment and challenges in the financial services industry, including impacts on our customers' purchasing decisions on products and services which are more discretionary in nature and the related demand for our solutions relative to our expectations;*
- *focusing on the financial services industry and any geographies where we have general customer concentration and the potential for any economic downturn or consolidation in such industry or geographies to adversely affect our business;*
- *the length, cost and unpredictability of our sales cycle;*
- *the development of our solutions and changes to the market for our solutions compared to our expectations;*
- *our ability to attract new customers and expand and renew existing customer relationships;*
- *managing challenges and costs associated with the implementation of a higher volume of or more complex configurations of our solutions;*
- *customer acceptance of and satisfaction with our existing and new solutions;*
- *the strength of our brand and reputation;*
- *intense competition in the markets we serve and challenges we face as we enter new markets or new sections of existing markets;*
- *integration of our solutions with and reliance by our solutions on third-party systems or services;*
- *security and privacy breaches involving our solutions;*
- *defects or errors in our solutions, including failures associated with transaction processing or interest, principal or balance calculations;*
- *defects, failures or interruptions in third-party services or solutions, including data centers and third-party hosting services;*
- *customer training and customer support;*
- *evolving technological requirements, enhancements and additions to our solution offerings;*
- *our sales and marketing capabilities, including partner relationships;*
- *dependency on our management team and other key employees and recruiting and retaining talent;*
- *increased costs associated with managing growth and the challenges associated with labor shortages, turnover, labor cost increases and extreme competition for talent;*
- *the COVID-19 pandemic and its residual impacts;*
- *international operations;*

- *mergers and acquisitions;*
- *our convertible debt obligations and our ability to secure sufficient additional financing when desired or needed on favorable terms;*
- *our revenue recognition method and the relative impacts of changes in subscription rates on implementation costs;*
- *quarterly fluctuations in our operating results relative to our expectations and guidance and the accuracy of our forecasts and the market data we use;*
- *our history of net operating losses and our ability to utilize our net operating loss carryforwards;*
- *the unpredictability of customer subscription renewals or solution adoption;*
- *our profit margins and the unpredictability of End-User adoption and usage, and customer implementation and support requirements;*
- *the reliability of our forecasting;*
- *sales taxes on our solutions;*
- *changes in financial accounting standards or practices;*
- *maintaining proper and effective internal controls and producing accurate and timely financial statements;*
- *regulations applicable to us, our customers and our solutions, including evolving regulation of AI, machine learning and the receipt, collection, storage, processing and transfer of data, and the impacts of any violation of these regulations;*
- *litigation or threats of litigation;*
- *protecting our intellectual property;*
- *"open-source" software in our solutions;*
- *risks associated with environmental, social and governance, or ESG, disclosures and evolving ESG disclosure requirements;*
- *expenses and administrative burdens as a public company;*
- *the dilutive effects of future sales, or anticipation of future sales, of our common stock and the resulting impact on the price of our common stock;*
- *unfavorable or misleading research by industry analysts;*
- *our stock price volatility and historical policy of no dividends;*
- *anti-takeover provisions in our charter documents and Delaware law;*
- *our ability to obtain additional financing and dilution to our stockholders resulting from raising capital or using equity for acquisitions; and*
- *our convertible notes and related capped call transactions and the related accounting treatment.*

Risks Related to our Operations, Industry and the Markets We Serve

We have experienced high growth in recent periods and if we fail to manage our growth effectively or experience a decline in our growth rate, 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 experienced high growth, 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 \$402.8 million for the twelve months ended December 31, 2020 to \$498.7 million for the twelve months ended December 31, 2021 and \$565.7 million for the twelve months ended December 31, 2022. 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 increasing success in selling our solutions to larger customers and the increased breadth of our solution offerings and the types of customers we serve may result in greater uncertainty and variability in our business and sales results. We also will 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 solutions to a broader set of customers. Our success will depend on our ability to plan for and manage this growth effectively and to address challenges to our growth model resulting from rapid changes in economic conditions. 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.

Unfavorable conditions in the financial services industry or the global economy could limit our ability to grow our business and negatively affect our operating results.

Our operating results may vary based on the impact of changes in our industry or the global economy on us or our customers and their End Users from industry and economic-driven changes. General macroeconomic and geopolitical conditions such as a recession or economic slowdown in the United States or internationally or the conflicts in and around Ukraine, the Middle East and other parts of the world, could adversely affect demand for our solutions and make it difficult to accurately forecast our results and plan our future business activities. For example, as a result of the impacts of COVID-19, customers delayed and deferred purchasing decisions, and for a period of time, there was a deterioration in near-term demand for net new opportunities. The revenue growth and potential profitability of our business depend on demand for enterprise SaaS solutions and services generally and for financial services solutions in particular. Weak or deteriorating economic conditions can affect the amount and growth rate of financial services information technology spending and could adversely affect our current or prospective customers' ability or willingness to purchase our solutions, decrease their information technology spending budgets, delay purchasing decisions, reduce the value or duration of their subscriptions, or affect subscription renewal rates, all of which could adversely limit our ability to grow our business and negatively affect our operating results. Moreover, the failures of Silicon Valley Bank, Signature Bank and First Republic Bank have created market disruption and uncertainty for the financial services industry, in particular among regional and community financial institutions, or RCFIs. To date, a substantial majority of our revenues continue to result from sales of our digital banking platform to U.S. based RCFIs, which we define as federally insured banks and credit unions with less than \$100 billion in assets. Financial institutions, in particular RCFIs, have experienced, and may continue to experience outflows of deposits as account holders move their deposits to larger financial institutions with perceived better liquidity and risk management. The actions taken by such institutions to address potential liquidity concerns have resulted in certain institutions incurring substantial costs that have negatively impacted, and may continue to negatively impact, their profitability and could lead to further market instability or bank failures. The current market conditions have caused and may continue to cause financial institutions to reduce lending activity as they seek to increase their reserves to maintain better liquidity. While the U.S. government has taken measures to strengthen public confidence in the banking system and protect depositors, such steps may be insufficient to resolve the volatility in the financial markets and reduce the risk of additional bank failures. Economic uncertainties, whether relating to the residual impacts of COVID-19, general macroeconomic and geopolitical conditions or challenges in the financial services industry more specifically, could limit our ability to grow our business and negatively affect our operating results. Uncertain economic and global conditions may also adversely affect third parties with which we have entered into relationships and upon which we depend in order to grow our business, such as technology vendors and public cloud providers. As a result, we may be unable to continue to grow in the event of future and sustained economic slowdowns.

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

Recent economic pressures from rising interest rates, inflation, bank failures and related challenges in the financial services industry or a slowdown in the economy, financial markets and credit markets had and could continue to have an impact on account holder or End User usage of our solutions and on our customers' prospects and our business sales cycles, our prospects' and customers' spending decisions, including for some of our non-implementation services which are more discretionary in nature, which has and may continue to impact the timing of purchasing decisions and demand for our solutions. Any downturn in the financial services industry or unfavorable economic conditions affecting the regions in which our customers or prospective customers are concentrated or particular segments of customers or prospective customers on which we focus, including the Alt-FI and FinTech sectors, may cause our customers or prospective customers to delay or 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 financial institutions, and in particular RCFIs, and we have been and may continue to be impacted by the current macroeconomic environment and the challenges in the financial services industry. Although we have a diversified customer base with no individual customer representing more than 4% of total revenue and our top 20 customers collectively accounting for less than 25% of total revenue, each for the year ended December 31, 2022, we have been, and may continue to be, impacted by the current macroeconomic environment and the challenges in the financial services industry. Financial institutions have in the past experienced significant pressure due to economic uncertainty, liquidity concerns and increased regulation. In recent years, many financial institutions have merged or been acquired, and periodically during downturns some financial institutions fail. The 2023 failures of Silicon Valley Bank, Signature Bank and First Republic Bank have created market disruption and uncertainty for the financial services industry, in particular among regional and community financial institutions, or RCFIs. To date, a substantial majority of our revenues continue to result from sales of our digital banking platform to U.S. based RCFIs, which we define as federally insured banks and credit unions with less than \$100 billion in assets. Financial institutions, in particular RCFIs, have experienced, and may continue to experience outflows of deposits as account holders move their deposits to larger financial institutions with perceived better liquidity and risk management. The actions taken by such institutions to address potential liquidity concerns have resulted in certain institutions incurring substantial costs that have negatively impacted, and may continue to negatively impact, their profitability and could lead to further market instability or bank failures. The current market conditions have caused and may continue to cause financial institutions to reduce lending activity as they seek to increase their reserves to maintain better liquidity. While the U.S. government has taken measures to strengthen public confidence in the banking system and protect depositors, such steps may be insufficient to resolve the volatility in the financial markets and reduce the risk of additional bank failures. It is possible these conditions may persist, deteriorate or reoccur. And longer term, failures and consolidations are likely to continue, and there are very few new financial institutions being created. Further, if our customers merge with or are acquired by other entities that have in-house developed 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 financial institutions 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. Financial institutions increasingly face competition from non-depository institutions or other innovative products or emerging technologies, such as cryptocurrencies, which may reduce the number of End Users or transactions using their more traditional financial services. Any of these developments could have an adverse effect on our business, results of operations and financial condition.

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 have and may continue to 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. Such events have and may continue to cause our customers or partners to delay, reduce, or even cancel planned digital financial services spending and impact our business and operations. During the second half of 2022, we observed a decline in customer demand relative to our expectations earlier in the year for certain discretionary aspects of our solutions, namely professional services, which we believe may have been related to the challenging macroeconomic environment. During the second half of 2022, we also observed a decline in transactional and other revenue from our Helix and payment solutions, resulting from decreased usage. These effects have continued throughout 2023 to date, and we expect continued negative impacts on our professional services for the remainder of the year and into 2024, or until the macroeconomic environment and the health of the financial services industry stabilizes or improves. Additionally, we may experience challenges associated with accurately predicting the impacts of any macroeconomic downturn, or challenges in the financial services industry, on our customers and their End Users, including in particular the impacts of any downturn on Alt-FIs and FinTechs and our arrangements with them, as Alt-FIs and FinTechs may have particular vulnerabilities to a macroeconomic downturn, and our arrangements with FinTechs represent a more complex revenue model for us which may be more vulnerable to an economic downturn than our arrangements with financial institutions. If customers or partners significantly reduce their spending with us or significantly delay or fail to make payments to us, our business, results of operations, and financial condition would be materially adversely affected, and as a result of our sales cycle, subscription model and our revenue recognition policies, the effects of such reductions or delays on our results of operations may not be fully reflected for some time.

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 has been dramatically changing, and we do not know whether financial institutions and other financial services providers will adopt or continue to adopt our existing and new solutions or whether the market will change in ways that we do not anticipate. Many financial service providers 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 financial service providers, switching from one provider of 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 financial institutions 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 financial institutions 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, continued investment in the enhanced functionality and features of our solutions, and investing in new innovative solutions. If financial service providers are unwilling to transition from their current systems, the demand for our 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. If the market for our solutions does not continue to evolve in the manner in which we believe it will or if our new solutions, in particular our Q2 Innovation Studio and Helix offerings, are not adopted by our current and prospective customers, our future business prospects may be negatively impacted. 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.

If we are unable to attract new customers, continue to broaden our existing customers' use of our solutions or renew existing relationships with customers or technology partners, our business, financial condition and results of operations could be materially and adversely affected.

To increase our revenues, we will need to continue to attract new customers and succeed in having our current customers expand the use of our solutions. In addition, for us to maintain or improve our results of operations, it is important that our customers renew their subscriptions with us on similar or more favorable terms to us when their existing subscription term expires. Our revenue growth rates may decline or fluctuate as a result of a number of factors, including customer spending levels, customer dissatisfaction with our solutions, decreases in the number of customers, decreases in usage of our solutions by End Users, changes in the type and size of our customers, pricing changes, competitive conditions, the loss of our customers to other competitors and general economic conditions. We cannot assure you that our current customers will renew or expand their use of our solutions. If we are unable to attract new customers or retain or attract new business from current customers or technology partners, our business, financial condition and results of operations may be materially and adversely affected.

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

We have and may continue to face unexpected implementation challenges related to the complexity of our customers' implementation and integration requirements, particularly implementations for larger customers with more complex requirements 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 in some cases may require complex acceptance testing related to the implementation of our solutions. Implementations often involve integration with or conversion of customers off of systems and services of third parties over which we do not have control. Implementation delays also may 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 longer implementation processes, including risks related to the timing and predictability of sales of our solutions, could cause customers to delay or forgo future purchases of our solutions, which would adversely affect the timing of bookings, which would have an adverse impact on our revenue and financials performance.

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 or technology partners, 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.

Growth of our business depends on a strong brand and any failure to maintain, protect and enhance our brand could hurt our ability to retain or expand our base of customers.

We believe that a strong brand is necessary to continue to attract and retain customers. We need to maintain, protect and enhance our brand in order to expand our customer base. This depends largely on the effectiveness of our marketing efforts, our ability to provide reliable solutions that continue to meet the needs of our customers at competitive prices, our ability to maintain our customers' trust, our ability to continue to develop new functionality and use cases, and our ability to successfully differentiate our solutions and their capabilities from competitive products and services, which we may not be able to do effectively. While we may choose to engage in a broader marketing campaign to further promote our brand, this effort may not be successful or cost effective. Our brand promotion activities may not generate customer awareness or yield increased revenues, and even if they do, any increased revenues may not offset the expenses we incur in building our brand. If we are unable to maintain or enhance customer awareness in a cost-effective manner, our brand and our business, financial condition and results of operations could be materially and adversely affected.

Our corporate reputation is susceptible to damage by actions or statements made by adversaries in legal proceedings, current or former employees or customers, competitors and vendors, technology partners, as well as members of the investment community and the media. There is a risk that negative information about our company, even if based on false rumor or misunderstanding, could adversely affect our business. In particular, damage to our reputation could be difficult and time-consuming to repair, could make potential or existing customers reluctant to select us for new engagements, resulting in a loss of business, and could adversely affect our employee recruitment and retention efforts. Damage to our reputation could also reduce the value and effectiveness of our brand name and could reduce investor confidence in us and materially and adversely affect our business, financial condition and results of operations.

The markets in which we participate are 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, core processing vendors and systems internally developed by financial services providers. With respect to our digital banking platform, we have several point solution competitors, including NCR Corporation, or NCR, Alkami Technology, Inc. and Lumin Digital in the online, consumer and small business banking space and Finastra, ACI Worldwide, Inc. 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 Fidelity National Information Services, Inc., or FIS. With respect to our lending platform, we compete against several point system competitors, including Abrigo, Baker Hill Solutions, LLC, Fair Isaac Corporation, nCino, Inc., Finastra, Moody's Analytics, Inc., Brilliance Financial Technology, Oracle Corporation, Temenos AG, and core processing vendors, including FIS and Fiserv. With respect to our Helix solution, we primarily compete with Galileo Financial Technologies, LLC, Marqeta, Inc. and Green Dot Corporation. Some 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 also may 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 consolidations 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 or services 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 service, or if there are performance issues with such third-party systems or services, our solutions will not operate effectively, our operations will be adversely affected and our reputation may be harmed.

The functionality of our solutions depends on our ability to integrate with other third-party systems and services used by our customers, including core processing software and, in the case of our Helix solutions, banking services. Certain providers of these third-party systems or services 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. We also resell numerous third-party services and market integrations to a large number of third-party services, including third-party services and integrations offered through our Q2 Innovation Studio solution.

Our business and reputation may be harmed if any such third-party provider:

- changes the features or functionality of its services, applications and platforms in a manner adverse to us;
- discontinues or limits our solutions' access to its systems or services;
- suffers a security incident or other incident that requires us to discontinue integration with its systems or services or results in a compromise of our systems or services;
- experiences staffing shortages or other operational challenges, including as a result of the challenging macroeconomic environment, which interferes with their ability to implement or adequately support an integration with our solutions;
- ceases to operate;
- 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 offers competing services.

Such events or circumstances could delay, limit or prevent us from integrating our solutions with these third-party systems or services, 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 systems or services as a result of changes to or restricted access to the systems or services by such third parties during the terms of existing agreements with customers using such third-party systems or services, 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 such third-party providers experience an outage, our solutions integrated with such systems or services will not function properly or at all, and our customers may be dissatisfied with our solutions. If the systems or services of such third-party providers have 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 we or our customers may be able to switch to alternative technologies if a provider's systems or 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 business faces significant risks from diverse security threats. If our security measures or the security measures of our customers or third-party providers on whom we rely are compromised or unauthorized access to our systems or customer data is otherwise obtained, our systems and 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, regulatory enforcement or fines or other consequences.

Certain elements of our solutions process and store personally identifiable information, or PII, such as banking and personal information of our customers and their End Users, and we also regularly have access to PII during various stages of the implementation process or during the course of providing customer support. Furthermore, as we develop additional functionality, we may gain greater access to PII. We maintain policies, procedures and technological safeguards designed to protect the confidentiality, integrity, availability and privacy of this information and our information technology systems. However, we cannot entirely eliminate the risk of improper or unauthorized access to or disclosure of PII or other security and

privacy events that impact the integrity, availability or privacy of PII or our systems and operations, or the related costs we may incur to mitigate the consequences from such events. Further, given the flexibility and complexity of our solutions, including an increasing number of integrations to third party solutions, there is a risk that configurations of, or defects in, the solutions or errors in the development or implementation could create vulnerabilities to security and privacy breaches. There may be unlawful attempts to disrupt or gain access to our information technology systems or the PII or other data of our customers or their End Users that may disrupt our or our customers' operations. In addition, because we leverage third-party providers, including cloud, software, data center and other critical technology vendors to develop and deliver our solutions to our customers and their End Users, we rely heavily on the data security technology practices and policies adopted by these third-party providers, and we may not be able to identify vulnerabilities in such third-party practices and policies. A vulnerability in a third-party provider's software or systems, a failure of our third-party providers' safeguards, policies, procedures or overall business operations or a breach of a third-party provider's software or systems could result in the compromise of the confidentiality, integrity or availability of our systems or the data housed in our solutions.

Our security measures and the security measures of our customers or third-party providers on whom we rely 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 login credentials. Security incidents can result in unauthorized access to, loss of or unauthorized disclosure of confidential information, litigation, regulatory enforcement, fines, indemnity obligations and other possible liabilities, as well as negative publicity, which could damage our reputation, impair our sales, harm our business and result in increased volatility in our stock price. Our business and operations, as well as those of our customers and third-party providers, are continuously exposed to a broad range of internal and external threats such as cyber-attacks, ransomware attacks, account take-over attacks, hijacking, organized cybercrime, financial transaction fraud, fraudulent representations, malicious code (such as viruses and worms), phishing, employee errors or omissions, employee theft or misuse, denial-of-service attacks and other malicious Internet-based activity. These internal and external threats continue to increase and evolve and financial services providers, their End Users, and technology providers are often targets of such threats or attacks. In addition to traditional computer "hackers," sophisticated criminal networks as well as nation-state and nation-state supported actors now engage in attacks, including advanced persistent threat intrusions. Current or future criminal capabilities, including increased threats from the use of artificial intelligence, discovery of existing or new vulnerabilities, and attempts to exploit those vulnerabilities or other developments, may compromise or breach our systems or solutions.

In addition, third parties may attempt to fraudulently induce our employees or the employees of our customers or third-party providers into disclosing sensitive information such as usernames, 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. In addition, there may be a heightened risk of state-sponsored cyberattacks or cyber fraud during periods of geopolitical uncertainty, as cybercriminals attempt to profit from the disruption, given increased online banking, e-commerce and other online activity. Additionally, there is an increased risk that we may experience cybersecurity-related events such as phishing attacks and other security challenges as a result of some of our employees and our service providers working remotely from non-corporate managed networks. Increased risks associated with cyberattacks, data and privacy breaches and breaches of security measures within our solutions, systems and infrastructure or the products, systems and infrastructure of third parties upon which we rely and the resultant costs and liabilities may cause failure or inability to meet our customers' expectations with respect to security and confidentiality and could harm our business and seriously damage our reputation and affect our ability to retain customers and attract new business. Our systems and operations are also subject to inherent internal threats from employees or contractors such as unauthorized information access or disclosure and asset misappropriation, including as a result of inadequate access management. While we endeavor to counter these threats through processes designed to identify and monitor potentially risky behaviors, including data loss prevention and access rights management protocols, no risk mitigation strategy can entirely eliminate the risks posed by internal threats.

As cyber threats have evolved and continue to evolve, vulnerabilities in our solutions have been and will in the future be detected, and we expect to expend significant additional resources to continue to modify or enhance our layers of defense to remediate such vulnerabilities. System enhancements and updates create risks associated with implementing new systems and integrating them with existing ones, including risks associated with the effectiveness of our, our customers' and our third-party providers' software development lifecycles. Due to the complexity and interconnectedness of our systems and solutions, the process of enhancing our layers of defense, including addressing hardware-based vulnerabilities, can itself create a risk of systems disruptions and security issues. Our and our customers' and third-party providers' ability to deliver patches and updates to mitigate vulnerabilities in a timely manner can introduce additional risks, particularly when a vulnerability is being actively exploited by threat actors.

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 and privacy compromises experienced by our competitors, by our customers or by us may lead to public disclosures and widespread negative publicity. Any security and privacy 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 and privacy 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.

Defects or errors in our solutions, including failures associated with transaction processing or interest, principal or balance calculations, 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 from time-to-time contain defects or errors, particularly when first introduced or as new functionality is released. The volume and dollar amount of payment transactions and interest, principal or balance amounts that we, our customers and our third-party partners process and calculate is significant and continues to grow. Transactions facilitated by us, our customers and our third-party partners include debit card, credit card, electronic bill payment transactions, Automated Clearing House, or ACH, payments, real-time payments through faster payment networks, transactions in cryptocurrencies and check clearing that support consumers, financial institutions and other businesses. Certain of our solutions also calculate dollar amounts, including interest, principal, remaining balance and payment amounts on loans, and in certain circumstances our solutions serve as the system of record on which our customers rely to instruct and inform End Users of amounts they must pay and their associated remaining balances. Additionally, certain of these solutions are designed to be configurable by our customers and their ability to perform as intended can be affected by the manner in which our customers use or configure the solution. Despite extensive testing, from time-to-time we discover, and may in the future discover, defects or errors in our solutions or the solutions of our third-party partners, as well as unanticipated processing errors resulting from customer use or behavior. 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 or our third-party partners' software processes related to those requirements. Material performance problems or defects in our solutions might arise in the future.

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, can be costly and complicated for us to remedy, cause damage to our customers' businesses and to their End Users and harm our reputation. Additionally, certain of our solutions are hosted by our customers, resulting in our inability to directly access and monitor the data being processed by and our customers' use of such solutions. When any such solutions being hosted by our customers encounter errors, defects or other performance problems, it can be difficult and costly to assess the issues properly and apply fixes, including because we must rely on the assistance and records of our customers. If the continuity of operations, integrity of processing, or ability to detect or prevent fraudulent payments were compromised in connection with payments transactions, we could suffer financial as well as reputational loss. 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 liability, lost business, increased insurance costs, difficulty in collecting our accounts receivable, costly litigation, increased regulatory oversight, fines or penalties, adverse publicity and brand damage. 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. This could be time consuming and cause us to incur significant expense and may require the involvement of our customers, which potentially increases the technical delivery risk. We might also encounter technical obstacles, and it is possible that we discover problems that prevent our solutions from operating properly. As a result of the complexity of our solutions and the complex needs of our customers, our customers depend on our technical resources to develop reliable and secure solutions and to resolve any technical issues relating to our solutions. Our ability to deliver our solutions is dependent on our software development lifecycle management processes, including with respect to our change management processes, which impact our ability to effectively develop our solutions and to identify, track, test, manage and implement changes to our solutions. As a result, our solutions require an ongoing commitment of significant resources to maintain and enhance them and to develop new solutions in order to keep pace with continuing changes in information technology, emerging cybersecurity risks and threats, evolving industry and regulatory standards and changing preferences of our customers. 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, software or other services on which we rely could impair the delivery of our solutions and adversely affect our business.

We rely on hardware and services that we purchase or lease and software, including open-source 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. These third-party providers may in the future choose not to continue to support certain of the hardware, software or services we license. We also may in the future choose to discontinue the use of the hardware, services or software we acquire or license from such third-party providers, which may require that we pay termination fees or recognize related accounting charges or impairments. While we are not substantially dependent upon any third-party hardware, services or software other than our third-party data centers, the loss of the right or ability to use all or a significant portion of our third-party hardware, services 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, services 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, services 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, such hardware, services 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 such hardware, services 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 have and could continue to 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, which are both operated by the same third-party provider, and our lending solutions, Helix solutions and a certain portion of our digital banking platform solutions are hosted by cloud-based service 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 have experienced, and may in the future experience website disruptions, outages and other performance problems with these data centers and third-party hosting providers. These problems may be caused by a variety of factors, including infrastructure changes, hardware failures, human or software errors, viruses, security attacks, fraud, operational disruption, spikes in customer usage and denial of service issues. For example, as a result of increased online banking activity due to the COVID-19 pandemic, including periodic significant increases in logins by End Users seeking to check their accounts for receipt of government stimulus funds, financial institutions and their online banking service providers experienced periods of unprecedented user login activity, at times, resulting in delayed access to online banking for many financial institutions, including many of our customers. We have made investments in additional data center capacity to increase the processing capacity of our online banking platform to minimize any future delays, and we expect to make additional incremental investments to further enhance our hosting infrastructure and support. 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 service providers, 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, pandemics 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, and may be required to pay refunds to our customers based on service level agreement (SLA) provisions in their contracts.

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, pandemics 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. Prolonged interruption in the availability, or reduction in the speed or other functionality, and frequent or persistent interruptions in our solutions could cause customers to believe that our solutions are unreliable, leading them to switch to our competitors or to avoid our solutions, which could also 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 solution customers encounter problems with it, we may be required to replace Force.com with another platform, which would be difficult and costly.

Certain of our digital lending 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 certain of our digital lending 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, certain of our digital lending solutions will not function properly, and our customers may be dissatisfied. If salesforce.com has performance or other problems with its Force.com platform or its operations generally, they will reflect poorly on us and the adoption and renewal of certain of our digital lending solutions and our business may be harmed.

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, which can make 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 maintain or expand our sales and marketing capabilities and teams, as necessary, 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 maintain and potentially 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 may 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 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 grow revenue in the future may 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 generally terminate any employee's employment at any time, with or without cause, subject to local laws in particular non-U.S. jurisdictions, 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 also have 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 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 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. Recent macroeconomic challenges and broad-based inflation have impacted many industries with increased employee resignations and turnover, labor shortages, extreme competition for talent, wage inflation and pressure to improve employee benefits and compensation to remain competitive, all resulting in increased difficulty in managing personnel costs. In prior years, we have experienced heightened employee turnover, delays in hiring suitable replacement candidates and increased costs to hire new employees. While the hiring environment became less challenging and we experienced reduced voluntary employee turnover in the second half of 2022 and in 2023, we may continue to experience inflation in the wages we have to pay to hire and retain qualified employees in future periods. A sustained labor shortage or additional increases in turnover rates within our employee base could lead to further increased costs, such as increased wages or other compensation to attract and retain employees and could negatively affect our ability to support our operations and our plans for future growth. 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.

The residual impacts of the COVID-19 pandemic could further adversely affect our business, results of operations and financial condition.

Our business depends on the overall demand for our solutions, and on the economic health of our current and prospective customers. The residual impacts of the COVID-19 pandemic on our business, customers, partners, employees, markets and financial results and condition, are uncertain, evolving and dependent on numerous unpredictable factors outside of our control, including:

- the duration and severity of the pandemic as a public health matter and its impact on governments, businesses, society, our customers, our partners and our business;
- the measures that have been, or may in the future be, taken by governments, businesses and society in response to the pandemic;

- the scope and effectiveness of fiscal and monetary stimulus programs and other legislative and regulatory measures that have been or may be implemented by federal, state and local governments;
- deterioration of worldwide credit and financial markets that could limit our ability to obtain external financing to fund our operations and capital expenditures or to refinance existing indebtedness;
- potential asset impairments, including goodwill, intangible assets, investments and other assets;
- the increase in business challenges among our customers and other businesses from macroeconomic factors and recent challenges in the financial services industry; and
- the willingness of current and prospective customers to invest in our solutions.

Any of these factors may impact our business unfavorably. There can be no assurance that our actions taken in response to the COVID-19 pandemic will succeed in preventing or mitigating any negative impacts on our business. Even after the COVID-19 pandemic or a similar public health crisis had subsided, we may continue to experience adverse impacts to our business as a result of its global economic impact, including any recession, economic downturn, inflation, or increased unemployment that has occurred or may occur in the future.

Because our long-term success depends on our ability to operate our business internationally, our business is susceptible to risks associated with international operations.

We have international operations in India, Australia, Canada, the United Kingdom and Mexico. We also may expand our international operations in the foreseeable future. The continued international expansion of our operations requires significant management attention and financial resources and involves significant administrative and compliance costs. Our limited experience in operating our business in certain regions outside the U.S. 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 U.S. 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 U.S. These include, but are not limited to:

- fluctuations in currency exchange rates;
- the complexity of, or changes in, foreign regulatory requirements;
- difficulties in managing the staffing of international operations, including compliance with local labor and employment laws and regulations;
- complexities implementing and enforcing cross-border information technology and security controls;
- 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;
- the cost and complexity of bringing our solutions into compliance with foreign regulatory requirements, and risks of our solutions not being compliant;
- 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, certain of which may be significantly more burdensome than those in place in the U.S.;
- 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;

- constraints of remote working by employees;
- 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.

In particular, we operate some of our research and development activities internationally and outsource a portion of the coding and testing of our products and product enhancements to contract development vendors. We believe that performing research and development in our international facilities and supplementing these activities with our contract development vendors enhances the efficiency and cost-effectiveness of our product development. If we experience problems with our workforce or facilities internationally, we may not be able to develop new products or enhance existing products in an alternate manner that may be equally or less efficient and cost-effective. In addition, if information technology and security controls we have implemented to address risks posed by research and development activities outside of the U.S. are breached or are otherwise ineffective, our intellectual property or technical infrastructure could be compromised or stolen and we could be subjected to cyberattacks or intrusions.

We may acquire or invest in companies, pursue business partnerships or divest non-strategic products or assets, 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 and additional channels of distribution. Negotiating any acquisition, investment or alliance, or any divestiture opportunity can be time-consuming, difficult and expensive, and our ability to close these transactions may be subject to approvals that are beyond our control. 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 or identified purchaser for divestiture opportunities. 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;
- our inability to successfully sell and maintain the solutions of the acquired business;
- 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 technology, 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 to other business concerns;
- adverse effects to our existing business relationships with business partners and customers as a result of the acquisition or divestiture;
- 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, pay off our existing debt or respond to challenges and unforeseen circumstances. We also may 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.

Financial and Accounting-Related Risks

Because we recognize revenues from a significant portion of our solutions over the terms of our customer agreements, the impact of changes in the subscriptions for such 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.

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

Our quarterly operating results and key operating measures 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 or key operating measures 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 or key operating measures include the following:

- the addition or loss of customers, including through acquisitions, consolidations or failures;
- the timing of large subscriptions and customer terminations, renewals or failures to renew;
- the amount of use of our solutions in a period and the amount of any associated transactional revenues and expenses;
- the amount and timing of professional service engagements and 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 lower in the first half 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 and predictability of sales of our solutions and the impact that the timing of bookings may have on our revenue and financial performance in a period;
- 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;
- general economic conditions or conditions in the financial services industry 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;
- natural disasters or public health emergencies and their effect on the operations of us, our customers, our third-party providers and on the overall economy;
- impairment charges related to long-lived assets;
- unexpected expenses such as those related to non-recurring corporate transactions, litigation or other disputes, or changes in claim trends on our workers' compensation, unemployment, disability and medical benefit plans may negatively impact our operating costs;
- 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.

Any one of the factors above, or the cumulative effect of some or all of the factors referred to above, may result in significant fluctuations in our quarterly and annual results of operations. This variability and unpredictability could result in our failure to meet or exceed our internal operating plan. Additionally, the price of our convertible 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 convertible 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 \$109.0 million, \$112.7 million and \$137.6 million for the years ended December 31, 2022, 2021 and 2020, respectively. As of September 30, 2023, we had an accumulated deficit of \$607.6 million. These losses and accumulated deficit reflect the substantial investments we have made to develop, sell and market our solutions, acquire customers and hire and retain qualified employees. As we seek to continue to grow our business, including through acquisitions, we expect to incur additional 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 continue to make other investments 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, while also managing our business in response to continued challenging macroeconomic conditions, challenges in the financial services industry and any anticipated or resulting recession. 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.

The markets in which we compete and demands of our customers are constantly changing and it is difficult to accurately predict the long-term rate of customer subscription renewals or solution adoption, or the impact these renewals and adoption, or any customer terminations, will have on our revenues or operating results.

As the markets for our existing solutions develop and evolve, we may be unable to attract new customers at the same price or based on the same pricing model as we have used historically. Additionally, as a result of the operational and economic challenges being faced by our customers, we could be forced to modify contractual or payment terms with our customers. 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 not be able to maintain historical contract terms such as pricing and duration and instead 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.

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 number of End Users on our solutions or the number of transactions they perform decreases, 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.

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, 2022 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 size, growth or anticipated spending prove to be inaccurate, our business and growth prospects could be adversely affected. Even if the forecasted size or growth proves accurate, 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 execute on 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.

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, 2022, we had approximately \$590.1 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; loss carryforwards arising for 2018 and later do not expire. In addition, Section 382 of the Internal Revenue Code, as amended, 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, June 2019, May 2020, or in connection with shares of our common stock issued in connection with our November 2020 convertible debt exchange, 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 and other tax returns within the U.S. and foreign jurisdictions as required by law and certain customer contracts for a portion of the solutions that we provide. Our tax liabilities with respect to sales and other taxes in various jurisdictions were approximately \$0.9 million as of September 30, 2023. From time to time, we face sales and other tax audits, and we will likely continue to do so in the future. Our liability for these taxes could exceed our estimates as tax authorities could still assert that we are obligated to collect additional amounts as taxes from our customers and remit those taxes to such authorities.

We do not collect sales or other similar taxes in other states or jurisdictions, and some jurisdictions do not apply sales or similar taxes to certain solutions. State, local and foreign taxing jurisdictions have differing rules and regulations governing sales and other 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 other taxes in a particular jurisdiction, we may voluntarily engage tax authorities to determine how to comply with their rules and regulations. A successful assertion by one or more jurisdictions, including those 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 impact 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.

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 U.S. 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.

Legal and Regulatory Risks

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, implementing and using our solutions. As a provider of technology to financial institutions, 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 Federal Financial Institutions Examination Council, or 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 financial institutions, 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. Certain of our solutions are designed to be highly configurable by our customers and their ability to perform as intended can be affected by the manner in which our customers use or configure the solutions. To the extent we do not adequately train our customers to properly use such highly configurable solutions and advise them of the associated risks, or to the extent our customers do not follow our training, our customers may use them incorrectly or in a manner that violates the law or causes harm to our customers or their End Users. 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. Data privacy, information security, and data protection are significant issues in the U.S. and globally. The regulatory framework governing the collection, processing, storage, use and sharing of certain information, particularly financial and other PII, is rapidly evolving and is likely to continue to be subject to uncertainty and varying interpretations. The occurrence of unanticipated events and development of evolving technologies often rapidly drives the adoption of legislation or regulation affecting the use, collection or other processing of data and manner in which we conduct our business. In the U.S., 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 U.S., 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 GDPR, which came into force in May 2018 and the California Consumer Privacy Act, which came into force in January 2020, each of which 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 and privacy 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.

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, AI or machine learning could have a material adverse impact on our receipt, collection, storage, processing and transferring 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. 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 or intellectual property 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, our overall financial condition and our operating results. Insurance may not cover such claims, provide sufficient payments to cover all the costs to resolve one or more such claims or continue to be available on terms acceptable to us. A claim brought against us that is uninsured or underinsured could result in unanticipated costs and impact our liquidity, thereby reducing our operating results and impacting our financial condition, leading analysts and investors to reduce their confidence and expectations and reduce the trading price of our stock.

Lawsuits by third parties against us or 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 and financial condition.

Our industry is characterized by the existence of a large number of patents, copyrights, trademarks, trade secrets and other intellectual property and proprietary rights as well as a high number of allegations and disputes related to these rights. Our competitors and the competitors of our customers, as well as a number of other entities and individuals (both operating and non-operating), own or claim to own intellectual property relating to our industry. As a result, we regularly are subject to allegations and involved in disputes, either directly or on behalf of our customers, that our solutions and the underlying technology infringe the patent and other intellectual property rights of third parties. The frequency of these types of claims also may increase as we continue to add new customers and as a result of our being a public company. The defense against these allegations and disputes and, if unsuccessful, their resolution could result in our having to pay damages and negatively impact our ability to continue to sell and provide all or a portion of our solutions or certain third-party solutions, any of which could materially harm our reputation, business results and financial condition. Insurance may not cover such claims, provide sufficient payments to cover all the costs to resolve one or more such claims or continue to be available on terms acceptable to us. Successful outcomes in these disputes depend upon our ability to demonstrate that our solutions do not infringe upon the intellectual property rights of others. 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 or more relevant patent portfolios than we have.

Our customer agreements typically require us to indemnify our customers in connection with claims alleging our solutions or the underlying technologies infringe the patent or other intellectual property rights of third parties. Our customers regularly receive allegations from third parties or are involved in these disputes with third parties, and we may be required to indemnify them in connection with these matters. We are currently involved in these types of disputes, and given the high level of this activity in our industry, we expect these types of disputes to continue to arise in the future. If we are unsuccessful in defending claims for which we are required to provide indemnity, our business and operating results could be adversely affected. Any significant disputes among us and our customers as to the applicability of our indemnity obligations could negatively impact our reputation and customer relations, affect our ability to sell our solutions and harm our operating results. Further, there can be no assurances that any provisions in our contracts that purport to limit our liability would be enforceable or adequate or would otherwise protect us from any such liabilities or damages with respect to any particular claim.

In certain instances, we license technologies from third parties for use directly or indirectly in our solutions or for resale with our solutions. Our contracts with these third parties may include provisions that require the third party to indemnify us in the event of any claim or dispute that the third party's technologies infringe upon the patent or other intellectual property rights of others. If we are unable for any reason to seek indemnity or otherwise collect from those third parties our direct or indirect liabilities related to any claim, then we may have to bear the liabilities ourselves and our business performance and financial condition could be substantially harmed.

The risk of patent litigation exists with operating entities but also has been amplified by the increase in the number of non-practicing patent asserting entities, or "patent trolls." Any claims or litigation, whether by operating entities or "patent trolls," 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.

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 also may 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.

Our employees may use certain technological tools and infrastructure that allow us to enhance productivity, such as AI-enhanced chat bot functionality, which can generate code or other content. If we cannot develop or maintain effective policies and controls around the use of AI, or if resulting code or content inadvertently contains malicious or vulnerable data or code, open-source code, infringes upon third-party intellectual property rights or is encumbered by third-party rights, our business and reputation could be harmed. Such use of AI may also result in disclosure of Q2 confidential or proprietary information to the third party providing the AI, or others, and potentially further use or copying by such third parties of Q2's proprietary information.

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 September 30, 2023, we had six U.S. patent applications pending and 12 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.

Our aspirations and commitments to ESG matters expose us to risks that could adversely affect our reputation and performance.

The positions we have taken and may take on ESG matters, human capital management initiatives, and ethical issues from time to time, may impact our brand, reputation, or ability to attract and retain customers, suppliers and employees. We are committed to sustainable business practices and strive for positive impacts in not just environmental matters, but also social and governance practices. We publish our goals, progress and accomplishments annually in our ESG Report, most recently published on July 19, 2023. These statements, along with those on our website and/or from our management team, reflect our current plans and aspirations but are not guarantees that we will be able to achieve them.

Our ability to achieve any ESG objective is subject to numerous risks, many of which are outside of our control. Examples of such risks include:

- the availability and cost of low or non-carbon-based energy sources;
- the evolving regulatory requirements affecting ESG standards or disclosures;
- the availability of suppliers that can meet our sustainability, diversity and other ESG standards;
- our ability to recruit, develop and retain diverse talent in our labor markets; and
- the success of our organic growth and acquisitions, dispositions or restructuring of our business operations.

Standards for tracking and reporting ESG matters continue to evolve. In addition, our processes and controls may not always comply with evolving standards for identifying, measuring, and reporting ESG metrics, including ESG-related disclosures that may be required of public companies by the SEC, and such standards may change over time, which could result in significant revisions to our current goals, reported progress in achieving such goals, or ability to achieve such goals in the future. As an example of increased regulatory focus, in February 2021, the Acting Chair of the SEC issued a statement directing the Division of Corporation Finance to enhance its focus on climate-related disclosure in reporting company filings, and in March 2021, the SEC announced the creation of a Climate and ESG Task Force in the Division of Enforcement to develop initiatives which proactively identify ESG-related misconduct. In May 2022, the Chair of the SEC announced a proposal to improve disclosures by certain investment advisors and funds that purport to take ESG factors into consideration when making investing decisions. It is likely that increasing regulatory requirements and regulator scrutiny related to ESG matters will continue to expand globally and result in higher associated compliance costs.

Further, we may rely on data provided by third parties to measure and report our ESG metrics and if the data input is incorrect or incomplete, our brand, reputation, and financial performance may be adversely affected. Our failure or perceived failure to accomplish or accurately track and report on these goals on a timely basis, or at all, could adversely affect our reputation, financial performance and growth, our ability to attract or retain employees, the attractiveness of our securities as an investment, our relationships with business partners and/or service providers and expose us to increased scrutiny from the investment community, customers, suppliers, employees, as well as enforcement authorities and may also increase the risk we become subject to litigation.

Risks Related to Ownership of Our Common Stock

We have incurred and will continue to incur significant 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.

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 also may 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 September 30, 2023, we had an aggregate of 58,635,005 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 have registered 28,275,901 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.

Since our initial public offering, from time to time we have conducted registered offerings of our common stock. Additionally, as of September 30, 2023 we had an outstanding principal amount of \$304.0 million of 0.75% Convertible Senior Notes due 2026, or the 2026 Notes and an outstanding principal amount of \$191.0 million of 0.125% Convertible Senior Notes due 2025, or the 2025 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 issued in connection with the offering of the 2026 Notes and 2025 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 is influenced in part by 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.

Our stock price has been and may continue to be highly volatile.

The trading price of our common stock has been and may 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. Additional 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;
- uncertainties in the financial services industries;
- 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, the only opportunity to achieve a return on 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, the only opportunity to achieve a return on investment in our company will be if the market price of our common stock appreciates and shares are sold 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 is paid for our 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 and negatively impact the trading price of our common stock.

Risks Related to Our Convertible Notes

We incurred indebtedness by issuing our 2026 Notes in 2019, and our 2025 Notes in 2020, 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 2026 Notes in 2026 and the principal of the 2025 Notes in 2025 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. Additionally, if our stock price trades at a level where the conversion of any series of our convertible notes is not economical for holders of such convertible notes, the conversion of the applicable series of convertible notes is highly unlikely. This will result in us needing to repay the full aggregate principal amount outstanding of the applicable series of our convertible notes, plus accrued and unpaid interest and additional amounts (if any) at maturity in lieu of settling conversions of the convertible notes, and extinguishing our indebtedness under such convertible notes, with shares of our common stock. Our future operations may not generate sufficient cash to enable us to repay our debt, including the 2026 Notes or 2025 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 therefore 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 applicable 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 one of the indentures governing our convertible notes or a 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 an indenture governing any of our convertible notes may lead to an acceleration of the applicable series of notes. Any such acceleration could result in our bankruptcy. In a bankruptcy, the holders of our convertible notes would have a claim to our assets that is senior to the claims of our equity holders.

Conversion of the convertible notes could 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 could 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.

The capped call transactions entered into in connection with the offering of the 2026 Notes and 2025 Notes may affect the value of our common stock.

In connection with the offering of the 2026 Notes and 2025 Notes, 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 and 2025 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 or 2025 Notes, as a result of conversion of the 2026 Notes or 2025 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 and 2025 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 2025 Notes, and are likely to do so during any observation period related to a conversion of the 2026 Notes or 2025 Notes or following any repurchase of 2026 Notes or 2025 Notes by us. This activity could also cause or avoid an increase or a decrease in the market price of our common stock.

We are subject to counterparty risk with respect to the capped call transactions, and they may not operate as planned.

The option counterparties to our capped call transactions entered into in connection with the convertible notes are financial institutions, and we will be subject to the risk that they might default under these derivative transactions. Our exposure to the credit risk of these counterparties will not be secured by any collateral. If an option counterparty becomes subject to insolvency proceedings, we will become an unsecured creditor in those proceedings with a claim equal to our exposure at that time under our transactions with that option counterparty. Our exposure will depend on many factors, but, generally, the increase in our exposure will be correlated with increases in the market price or the volatility of our common stock. In addition, upon a default by an option counterparty, we may suffer more dilution than we currently anticipate with respect to our common stock underlying the convertible notes. We can provide no assurances as to the financial stability or viability of any option counterparty.

In addition, the capped call transactions are complex, and they may not operate as planned. For example, the terms of each may be subject to adjustment, modification or, in some cases, renegotiation if certain corporate or other transactions occur. Accordingly, these transactions may not operate as we intend if we are required to adjust their terms as a result of transactions in the future or upon unanticipated developments that may adversely affect the functioning of the capped call transactions.

Certain provisions in the indentures governing our convertible notes may delay or prevent an otherwise beneficial takeover attempt of us and may affect the trading price of our common stock.

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 in our common stock.

If any of the conditional conversion features of any series of convertible notes is triggered, our financial condition and operating results may be adversely affected which could decrease the trading price of our common stock.

In the event any of the conditional conversion features of the 2026 Notes or 2025 Notes is triggered, note holders will be entitled to convert their 2026 Notes or 2025 Notes, as applicable, at any time during specified periods at their option. If one or more holders elect to convert the 2026 Notes or 2025 Notes, as applicable, we may 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), which would result in dilution to the holders of our common stock. If we elect to or would be required to settle a portion or all of our conversion obligation in cash, it could adversely affect our liquidity, which may negatively impact the trading price of our common stock. In addition, even if holders of the 2026 Notes or 2025 Notes do not elect to convert their 2026 Notes or 2025 Notes, as applicable, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the 2026 Notes or 2025 Notes as a current rather than long-term liability, which would result in a material reduction of our net working capital, which may negatively impact the trading price of our common stock.

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

(a) Sales of Unregistered Securities

None.

(b) Use of Proceeds

None.

(c) Repurchases

None.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

Rule 10b5-1 Trading Plans

The adoption or termination of contracts, instructions or written plans for the purchase or sale of our securities by our officers and directors for the three months ended September 30, 2023, each of which is intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) under the Exchange Act (a "Rule 10b5-1 Trading Plan"), were as follows:

David Mehok, Chief Financial Officer, entered into a Rule 10b5-1 Trading Plan on August 17, 2023. Mr. Mehok's plan provides for the potential sale of up to 800 shares of the Company's common stock between November 29, 2023 and December 8, 2023.

Kirk Coleman, President, entered into a Rule 10b5-1 Trading Plan on August 30, 2023. Mr. Coleman's plan provides for the potential sale of up to 24,943 shares of the common stock between December 12, 2023 and August 30, 2024, less any shares sold pursuant to mandatory sell-to-cover transactions not covered by the plan related to withholding taxes due as a result of the vesting of any restricted stock units, market stock units or performance stock units covered by the plan.

On August 30, 2023, John Breeden, Chief Operating Officer, modified a Rule 10b5-1 Trading Plan originally adopted on June 8, 2023 to change the price limits for sales under the plan. As amended, Mr. Breeden's plan provides for the potential sale of up to 91,664 shares of the Company's common stock between December 21, 2023 and March 22, 2024, including (i) the potential exercises of vested stock options and the associated sale of up to 25,397 shares of common stock and (ii) the potential sale of up to 66,267 shares of common stock to be issued upon vesting of restricted stock units, market stock units and performance stock units, less any shares sold pursuant to mandatory sell-to-cover transactions not covered by the plan related to withholding taxes due as a result of the vesting of any restricted stock units, market stock units or performance stock units covered by the plan.

Non-Rule 10b5-1 Trading Arrangements

In June 2023, the Company adopted a policy pursuant to which any participant in the Company's equity incentive plans whose transactions are subject to Section 16 of the Security Exchange Act of 1934, as amended, is required to sell, upon the vesting or settlement of any such award, a portion of the shares subject to the award determined by the Company in its discretion to be sufficient to cover tax withholding obligations and to remit an amount equal to such tax withholding obligations to the Company. This mandatory sell-to-cover policy was adopted by the Company as a result of the inability of the Company's captive broker to effect the sell-to-cover transactions pursuant to Rule 10b5-1 Trading Plans.

As described above, each of Messrs. Mehok, Coleman and Breeden are subject to this mandatory sell-to-cover policy. The number of shares to be sold will be determined by the Company, in its discretion, in accordance with its withholding procedures.

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 and 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 and Exchange Commission on June 12, 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	**	Inline XBRL Taxonomy Extension Schema Document.
101.CAL	**	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	**	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	**	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	**	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104	**	Cover Page Interactive Data File (embedded within the Inline XBRL document)

* Incorporated herein by reference to the indicated filing.

** Filed herewith.

Furnished herewith.

SIGNATURES

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

November 1, 2023

Q2 HOLDINGS, INC.

By: /s/ MATTHEW P. FLAKE
Matthew P. Flake
Chief Executive Officer
(Principal Executive Officer)

November 1, 2023

By: /s/ DAVID J. MEHOK
David J. Mehok
Chief Financial Officer
(Principal Financial and Accounting Officer)

**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: November 1, 2023

/s/ MATTHEW P. FLAKE

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

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

I, David J. Mehok, 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: November 1, 2023

/s/ DAVID J. MEHOK

David J. Mehok
Chief Financial Officer
(Principal Financial and Accounting Officer)

**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 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 September 30, 2023 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: November 1, 2023

/s/ MATTHEW P. FLAKE

Matthew P. Flake
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.

**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 September 30, 2023 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: November 1, 2023

/s/ DAVID J. MEHOK
David J. Mehok
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.