

**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, 2022

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: 57,516,988 shares of Common Stock, \$0.0001 par value per share as of October 31, 2022.

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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:

- 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;*
- risks associated with the development of 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 in 2022 and beyond;*
- the impact that inflation, rising interest rates or a slowdown in the economy, financial markets and credit markets have and may continue to have on account holder or end user, 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, 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 the macroeconomic impacts of the novel coronavirus disease, or COVID-19, including increased employee turnover, labor shortages, wage inflation and extreme competition for talent;*
- the risk that the COVID-19 pandemic and the associated efforts to limit its spread continue to 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;*
- risks associated with effectively managing costs in light of the challenging macroeconomic environment, including the impacts of wage inflation on our operating costs;*
- risks associated with the general economic and geopolitical impacts of Russia's invasion of Ukraine, including the heightened risk of cyberattacks on financial services and other critical infrastructure, and continued or increased inflation partially driven by increased energy costs or other unpredictable economic impacts that have and may continue to negatively affect demand for our solutions;*
- risks associated with managing our business in response to continued challenging macroeconomic conditions and any anticipated or resulting recession;*
- risks associated with accurately forecasting and managing the impacts of any macroeconomic downturn on our customers and their end users, including in particular the impacts of any downturn on financial technology companies, or FinTechs, 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;*
- *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, machine learning and the receipt, collection, storage, processing and transfer of data;*
- *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;*
- *risks associated with selling our solutions internationally and with 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, of the SEC, including the risk factors discussed in our Annual Report on Form 10-K for the year ended December 31, 2021, filed with the SEC on February 16, 2022.*

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, 2022 (unaudited)	December 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	\$ 192,574	\$ 322,848
Restricted cash	2,732	2,973
Investments	203,116	104,878
Accounts receivable, net	52,598	46,979
Contract assets, current portion, net	3,298	1,845
Prepaid expenses and other current assets	13,503	10,531
Deferred solution and other costs, current portion	23,827	25,076
Deferred implementation costs, current portion	7,646	7,320
Total current assets	499,294	522,450
Property and equipment, net	59,130	66,608
Right of use assets	43,451	52,278
Deferred solution and other costs, net of current portion	26,571	26,930
Deferred implementation costs, net of current portion	18,686	17,039
Intangible assets, net	146,197	162,461
Goodwill	512,869	512,869
Contract assets, net of current portion and allowance	25,272	22,103
Other long-term assets	1,928	2,307
Total assets	<u>\$ 1,333,398</u>	<u>\$ 1,385,045</u>
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	\$ 11,660	\$ 10,597
Accrued liabilities	15,143	18,343
Accrued compensation	18,038	31,725
Convertible notes, current portion	10,887	—
Deferred revenues, current portion	101,057	98,692
Lease liabilities, current portion	9,443	9,001
Total current liabilities	166,228	168,358
Convertible notes, net of current portion	657,129	551,598
Deferred revenues, net of current portion	20,831	29,168
Lease liabilities, net of current portion	55,292	61,374
Other long-term liabilities	3,573	4,251
Total liabilities	903,053	814,749
Commitments and contingencies (Note 6)		
Stockholders' equity:		
Preferred stock: \$0.0001 par value; 5,000 shares authorized, no shares issued or outstanding as of September 30, 2022 and December 31, 2021	—	—
Common stock: \$0.0001 par value; 150,000 shares authorized, 57,517 issued and outstanding as of September 30, 2022 and 56,928 shares issued and outstanding as of December 31, 2021	6	6
Additional paid-in capital	961,841	1,064,358
Accumulated other comprehensive loss	(3,603)	(135)
Accumulated deficit	(527,899)	(493,933)
Total stockholders' equity	430,345	570,296
Total liabilities and stockholders' equity	<u>\$ 1,333,398</u>	<u>\$ 1,385,045</u>

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,	
	2022	2021	2022	2021
Revenues	\$ 144,751	\$ 126,736	\$ 419,131	\$ 366,829
Cost of revenues	77,895	69,726	228,988	201,278
Gross profit	66,856	57,010	190,143	165,551
Operating expenses:				
Sales and marketing	27,966	22,664	79,709	63,067
Research and development	33,099	30,763	96,062	86,987
General and administrative	22,614	20,352	66,467	57,890
Acquisition related costs	352	476	882	2,514
Amortization of acquired intangibles	4,422	4,483	13,266	13,465
Lease and other restructuring charges	5,494	1,244	6,031	2,056
Total operating expenses	93,947	79,982	262,417	225,979
Loss from operations	(27,091)	(22,972)	(72,274)	(60,428)
Other income (expense):				
Interest and other income	1,420	136	2,899	527
Interest and other expense	(1,651)	(8,151)	(5,024)	(25,042)
Loss on extinguishment of debt	—	—	—	(1,513)
Total other income (expense), net	(231)	(8,015)	(2,125)	(26,028)
Loss before income taxes	(27,322)	(30,987)	(74,399)	(86,456)
Provision for income taxes	(469)	(596)	(2,173)	(909)
Net loss	\$ (27,791)	\$ (31,583)	\$ (76,572)	\$ (87,365)
Other comprehensive gain (loss):				
Unrealized loss on available-for-sale investments	(746)	(8)	(2,363)	(3)
Foreign currency translation adjustment	(291)	163	(1,105)	128
Comprehensive loss	\$ (28,828)	\$ (31,428)	\$ (80,040)	\$ (87,240)
Net loss per common share, basic and diluted	\$ (0.48)	\$ (0.56)	\$ (1.34)	\$ (1.55)
Weighted average common shares outstanding:				
Basic and diluted	57,362	56,559	57,205	56,242

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,	
	2022	2021	2022	2021
Total stockholders' equity, beginning balances	\$ 440,939	\$ 597,495	\$ 570,296	\$ 643,364
Common stock and additional paid-in capital:				
Beginning balances	943,613	1,034,526	1,064,364	1,024,583
Stock-based compensation expense	17,783	14,404	51,208	41,796
Exercise of stock options	451	1,258	707	5,823
Issuance of common stock under ESPP	—	—	2,547	—
Shares acquired to settle the exercise of stock options	—	—	—	(200)
Cumulative effect of the adoption of new accounting standard	—	—	(156,979)	—
Equity component of early extinguishment of convertible notes	—	—	—	(28,454)
Settlement of convertible note hedges	—	—	—	26,295
Settlement of warrants	—	—	—	(19,655)
Ending balances	961,847	1,050,188	961,847	1,050,188
Accumulated deficit:				
Beginning balances	(500,108)	(436,969)	(493,933)	(381,187)
Cumulative effect of the adoption of new accounting standard	—	—	42,606	—
Net loss	(27,791)	(31,583)	(76,572)	(87,365)
Ending balances	(527,899)	(468,552)	(527,899)	(468,552)
Accumulated other comprehensive income (loss):				
Beginning balances	(2,566)	(62)	(135)	(32)
Other comprehensive income (loss)	(1,037)	155	(3,468)	125
Ending balances	(3,603)	93	(3,603)	93
Total stockholders' equity, ending balances	\$ 430,345	\$ 581,729	\$ 430,345	\$ 581,729
Common stock (in shares):				
Beginning balances	57,313	56,464	56,928	55,562
Shares acquired to settle the exercise of stock options	—	—	—	(2)
Exercise of stock options	16	88	28	297
Issuance of common stock under ESPP	—	—	57	—
Shares issued for the vesting of restricted stock awards	188	264	504	959
Ending balances	57,517	56,816	57,517	56,816

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,	
	2022	2021
Cash flows from operating activities:		
Net loss	\$ (76,572)	\$ (87,365)
Adjustments to reconcile net loss to net cash from operating activities:		
Amortization of deferred implementation, solution and other costs	17,227	17,394
Depreciation and amortization	45,237	40,580
Amortization of debt issuance costs	2,043	1,550
Amortization of debt discount	—	19,398
Amortization of premiums on investments	311	751
Stock-based compensation expense	51,208	41,796
Realized gain (loss) on sale of marketable securities	17	—
Deferred income taxes	943	52
Allowance for credit losses	56	50
Allowance for sales credits	(58)	25
Loss on disposal of long-lived assets	132	386
Loss on extinguishment of debt	—	1,513
Lease and other restructuring charges	6,031	2,056
Changes in operating assets and liabilities:		
Accounts receivable, net	(5,617)	(16,652)
Prepaid expenses and other current assets	(3,183)	(9,997)
Deferred solution and other costs	(7,341)	(9,631)
Deferred implementation costs	(10,666)	(10,260)
Contract assets, net	(4,620)	(3,185)
Other long-term assets	5,677	6,324
Accounts payable	1,622	(3,168)
Accrued liabilities	(16,630)	(1,029)
Deferred revenues	(5,973)	8,554
Deferred rent and other long-term liabilities	(8,090)	(7,528)
Net cash used in operating activities	(8,246)	(8,386)
Cash flows from investing activities:		
Purchases of investments	(214,084)	(88,857)
Maturities of investments	113,156	119,650
Purchases of property and equipment	(8,933)	(16,059)
Business combinations, net of cash acquired	—	(64,652)
Capitalized software development costs	(15,662)	(3,908)
Net cash used in investing activities	(125,523)	(53,826)
Cash flows from financing activities:		
Payments for repurchases of convertible notes	—	(63,692)
Proceeds from bond hedges related to convertible notes	—	26,295
Payments for warrants related to convertible notes	—	(19,655)
Proceeds from exercise of stock options and ESPP	3,254	5,822
Net cash provided by (used in) financing activities	3,254	(51,230)
Net decrease in cash, cash equivalents, and restricted cash	(130,515)	(113,442)
Cash, cash equivalents, and restricted cash, beginning of period	325,821	411,185
Cash, cash equivalents, and restricted cash, end of period	\$ 195,306	\$ 297,743
Supplemental disclosures of cash flow information:		
Cash paid for taxes, net of refund	\$ 637	\$ 839
Cash paid for interest	\$ 1,486	\$ 1,699
Supplemental disclosure of non-cash investing and financing activities:		
Shares acquired to settle the exercise of stock options	\$ —	\$ (200)
Property and equipment acquired and included in accounts payable and accrued liabilities	\$ 30	\$ 2,783
Property and equipment acquired through tenant improvement allowance	\$ —	\$ 9,692
Data center assets acquired under deferred payment arrangements or financing arrangements	\$ —	\$ 449

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

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

1. Organization and Description of Business

Q2 Holdings, Inc. and its wholly-owned subsidiaries, collectively the Company, is a leading provider of secure, cloud-based digital solutions that transform the ways in which traditional and emerging financial services providers engage with account holders and end users, or End Users. The Company sells its solutions to financial institutions, alternative finance companies, and financial technology companies. The Company's solutions enable customers 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 SEC, requirements for interim financial statements. The interim unaudited condensed consolidated financial statements include the accounts of Q2 Holdings, Inc. and its direct and indirect wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

In the Company's opinion, the accompanying interim unaudited condensed consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements and include all adjustments, consisting of normal, recurring adjustments, necessary for a fair presentation. Certain information and disclosures normally included in the notes to the annual consolidated financial statements prepared in accordance with GAAP have been omitted from these interim unaudited condensed consolidated financial statements pursuant to the rules and regulations of the SEC. Accordingly, these interim unaudited condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and the accompanying notes for the fiscal year ended December 31, 2021, which are included in the Company's Annual Report on Form 10-K, filed with the SEC on February 16, 2022. The results of operations for the three and nine months ended September 30, 2022 are not necessarily indicative of the results to be expected for the year ending December 31, 2022 or for any other period.

Use of Estimates

The preparation of the accompanying interim unaudited condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the interim unaudited condensed consolidated financial statements, and the reported amounts of revenues and expenses. Significant items subject to such estimates include: revenue recognition including determining the nature and timing of satisfaction of performance obligations, variable consideration, standalone selling price, and other revenue items requiring significant judgment; estimate of credit losses; stock-based compensation; the carrying value of goodwill; the fair value of acquired intangibles; the capitalization of software development costs; the useful lives of property and equipment and long-lived intangible assets; fair value of the conversion features of convertible notes; 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.

Cash and Cash Equivalents

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

Restricted Cash

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.

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

Investments

Investments typically include U.S. government securities, corporate bonds, commercial paper, certificates of deposit, money market funds and other equity investments. All debt investments are considered available for sale and are carried at fair value. 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. Adjustments resulting from impairment, fair value, or observable price changes are accounted for in the condensed consolidated statements of comprehensive loss.

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, 2022 and 2021. No customers accounted for 10% or more of accounts receivable, net, as of September 30, 2022 and a single customer accounted for 14% of accounts receivable, net as of December 31, 2021.

Contract Balances

The timing of revenue recognition, billings and cash collections can result in billed accounts receivable, unbilled receivables, contract assets, and deferred revenues or contract liabilities. Billings scheduled to occur after the performance obligation has been satisfied and revenue recognition has occurred result in contract assets. Contract assets that are expected to be billed during the succeeding twelve-month period are recorded in contract assets, current portion, and the remaining portion is recorded in contract assets, net of current portion on the accompanying condensed consolidated balance sheets at the end of each reporting period. A contract liability results when the Company receives prepayments or deposits from customers in advance for implementation, maintenance and other services, as well as initial subscription fees. Customer prepayments are generally applied against invoices issued to customers when services are performed and billed. The Company recognizes contract liabilities as revenues when the services are performed, and the corresponding revenue recognition criteria are met. Contract liabilities that are expected to be recognized as revenues during the succeeding twelve-month period are recorded in deferred revenues, current portion, and the remaining portion is recorded in deferred revenues, net of current portion, on the accompanying 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 \$0.3 million and \$0.1 million in expected losses for the nine months ended September 30, 2022 and 2021, respectively, of which \$0.4 million and zero has been written off and charged against the allowance at September 30, 2022 and 2021, respectively. The allowance for credit losses related to contract assets was \$0.2 million and \$0.3 million as of September 30, 2022 and December 31, 2021, respectively.

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

Accounts Receivable

Accounts receivable are stated at net realizable value, including both billed and unbilled receivables to customers. Unbilled receivable balances arise primarily when the Company provides services in advance of billing for those services. Generally, billing for revenues related to the number of End Users and the number of transactions processed by the customers' End Users that are included in the customers' minimum subscription fee occurs in the month the revenue is recognized, resulting in accounts receivable. Billing for revenues relating to the number of End Users and the number of transactions processed by the End Users that are in excess of the customers' minimum subscription fees are, generally, billed in the month following the month the revenues were earned, resulting in an unbilled receivable. Unbilled receivables of \$5.6 million and \$4.8 million were included in the accounts receivable balance as of September 30, 2022 and December 31, 2021, respectively.

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 \$0.4 million and \$0.2 million for expected losses for the nine months ended September 30, 2022 and 2021, respectively, and \$0.4 million and \$0.1 million has been written off and charged against the allowance as of September 30, 2022 and 2021, respectively. The allowance for credit losses related to accounts receivable was \$0.6 million and \$0.5 million as of September 30, 2022 and December 31, 2021, respectively.

The Company maintains reserves for estimated sales credits issued to customers for billing disputes or other service-related reasons. These allowances are recorded as a reduction against current period revenues and accounts receivable. In estimating this allowance, the Company analyzes prior periods to determine the amounts of sales credits issued to customers compared to the revenues in the period that related to the original customer invoice. This estimate is analyzed semi-annually and adjusted as necessary. The Company also maintains specific reserves for anticipated contract concessions. The allowance for sales credits and specific reserves was \$1.2 million and \$1.9 million as of September 30, 2022 and December 31, 2021, respectively.

Deferred Revenues

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

The net decrease in the deferred revenue balance for the nine months ended September 30, 2022 was primarily driven by the recognition of \$332.1 million of revenue recognized from current year invoices and \$86.9 million of revenue that was included in the deferred revenue balance as of December 31, 2021, partially offset by cash payments received or due in advance of satisfying the Company's performance obligations of \$408.4 million for current year invoices and \$4.5 million from the netting of contract assets and liabilities on a contract-by-contract basis. Amounts recognized from deferred revenues represent primarily revenue from the sale of subscription and implementation services.

The Company's payment terms vary by the type and location of its customer and the products or services offered. The 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.

On September 30, 2022, the Company had \$1.39 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 48% of its remaining performance obligations as revenue in the next 24 months, an additional 40% in the next 25 to 48 months, and the balance thereafter.

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Deferred Implementation Costs

The Company capitalizes certain personnel and other costs, such as employee salaries, stock-based compensation, benefits and the associated payroll taxes that are direct and incremental to the implementation of its solutions. The Company analyzes implementation costs that may be capitalized to assess their recoverability, and only capitalizes costs that it anticipates being recoverable through the terms of the associated contract. The Company begins amortizing the deferred implementation costs for an implementation to cost of revenues once the revenue recognition criteria have been met, and the Company amortizes those deferred implementation costs ratably over the expected period of customer benefit. The Company has determined this period to be the estimated life of the technology for new contracts, which is estimated to be five to seven years, and over the term of the agreement for other contracts. The Company determined the period of benefit by considering factors such as historically high renewal rates with similar customers and contracts, initial contract length, an expectation that there will still be a demand for the product at the end of its term, and the significant costs to switch to a competitor's product, all of which are governed by the estimated useful life of the technology. The Company monitors deferred implementation costs for impairment and records impairment when customers terminate or allow services to lapse, due to contract modifications, and/or from other assessments as needed. Any impairment losses identified are recognized in the form of an expense acceleration with the applicable amount recorded to deferred implementation costs, current portion and/or deferred implementation costs, net of current portion on the consolidated balance sheet and in cost of revenues in the consolidated statements of comprehensive loss.

The portion of deferred implementation costs expected to be amortized during the succeeding twelve-month period is recorded in current assets as deferred implementation costs, current portion, and the remainder is recorded in long-term assets as deferred implementation costs, net of current portion on the condensed consolidated balance sheets. The Company capitalized implementation costs in the amount of \$3.8 million and \$3.4 million during the three months ended September 30, 2022 and 2021, respectively, and recognized \$3.0 million and \$2.8 million of amortization during the three months ended September 30, 2022 and 2021, respectively. The Company capitalized implementation costs in the amount of \$10.7 million and \$10.3 million during the nine months ended September 30, 2022 and 2021, respectively, and recognized \$8.7 million and \$7.9 million of amortization during the nine months ended September 30, 2022 and 2021, respectively. Amortization expense is included in cost of revenues in the accompanying condensed consolidated statements of comprehensive loss.

Deferred Solution and Other Costs

The Company capitalizes sales commissions and other third-party costs such as third-party licenses and maintenance related to its customer agreements. The Company capitalizes sales commissions because the commission expenses are considered incremental and recoverable costs of obtaining a contract with a customer. The Company capitalizes commissions and bonuses for those involved in the sale, including direct employees and team members which are incremental to the sale and their associated management, as these are incremental to the sale. Substantially all commissions are paid in a single payment once the contract has been executed and the initial deposit has been received from the customer. The Company begins amortizing deferred solution and other costs for a particular customer agreement once the revenue recognition criteria are met and amortizes those deferred costs over the expected period of customer benefit. The Company has determined this period to be the estimated life of the technology for new contracts, which is estimated to be five to seven years, and over the term of the agreement for other contracts. The Company determined the period of benefit by considering factors such as historically high renewal rates with similar customers and contracts, initial contract length, an expectation that there will still be a demand for the product at the end of its term, and the significant costs to switch to a competitor's product, all of which are governed by the estimated useful life of the technology.

The Company capitalizes solution and other costs that it anticipates being recoverable. The portion of capitalized costs expected to be amortized during the succeeding twelve-month period is recorded in current assets as deferred solution and other costs, current portion, and the remainder is recorded in long-term assets as deferred solution and other costs, net of current portion. The Company capitalized \$2.9 million and \$1.7 million in deferred commissions costs during the three months ended September 30, 2022 and 2021, respectively, and recognized \$3.1 million and \$3.0 million of amortization during the three months ended September 30, 2022 and 2021, respectively. The Company capitalized \$10.8 million and \$8.1 million during the nine months ended September 30, 2022 and 2021, respectively, and recognized \$8.5 million and \$9.5 million of amortization during the nine months ended September 30, 2022 and 2021, respectively. Amortization expense is included in sales and marketing expenses in the accompanying condensed consolidated statements of comprehensive loss.

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Property and Equipment

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

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

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

Purchase Price Allocation, Intangible Assets, and Goodwill

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

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

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

Revenues

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

Revenue-generating activities are directly related to the sale, implementation and support of the Company's solutions within a single operating segment. The Company derives the majority of its revenues from subscription fees for the use of its solutions hosted in either the Company's data centers or cloud-based hosting services, transactional revenue from bill-pay solutions and revenues for customer support and implementation services related to the Company's solutions.

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Subscription	\$ 106,644	\$ 91,544	\$ 304,010	\$ 265,765
Transactional	15,930	17,356	50,714	51,349
Services and Other	22,177	17,836	64,407	49,715
Total Revenues	<u>\$ 144,751</u>	<u>\$ 126,736</u>	<u>\$ 419,131</u>	<u>\$ 366,829</u>

Subscription Revenues

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

A small portion of the Company's customers host and manage the Company's solutions on-premises or in third-party data centers under term license and maintenance agreements. Term licenses sold with maintenance entitle the customer to technical support, upgrades and updates to the software on a when-and-if-available basis. The Company recognizes software license revenue once the customer obtains control of the license, which generally occurs at the start of each license term. The Company recognizes the remaining arrangement consideration for maintenance revenue over time on a ratable basis over the term of the software license. Revenues from term licenses and maintenance agreements were not significant in the periods presented.

Transactional Revenues

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

Services and Other Revenues

Implementation services are required for new digital banking and lending platform and other standalone contracts, and there is a significant level of integration and configuration for each customer. The Company's revenue for implementation services is billed upfront and generally recognized over time on a ratable basis over the customer agreement term for its hosted application agreements. Implementation services for on-premises agreements are recognized at commencement date. Under certain circumstances, the Company has determined that these implementation services qualify as a separate performance obligation in certain markets and geographies, and the implementation services for these agreements are recognized over time as services are performed.

Professional services revenues, which primarily consist of training, advisory services, core conversion services, web design, and other general professional services, are generally billed and recognized when delivered. Premier Services revenue is generated from select established customer relationships where the Company has engaged with the customer for more tailored, premium professional services, or Premier Services, resulting in a deeper and ongoing level of engagement with them. Other also includes certain debit card related pass-through fees that are not directly tied to card utilization.

Certain out-of-pocket expenses billed to customers are recorded as revenues rather than an offset to the related expense.

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Significant Judgments

Performance Obligations and Standalone Selling Price

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

The majority of the Company's revenue recognized at a particular point in time is for usage revenue, on-premise software licenses and certain professional services. These services are recognized as the customer obtains control of the asset or the point the customer obtained control of the software.

Judgment is required to determine the SSP for each distinct performance obligation. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied. The primary method used to estimate SSP is the adjusted market assessment approach, which considers the Company's overall pricing objectives, market conditions and other factors, including the value of the Company's contracts, its discounting practices, the size and volume of its transactions, customer characteristics, price lists, go-to-market strategy, historical standalone sales and agreement prices, and the number and types of users within its contracts.

Variable Consideration

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

The Company sometimes provides credits or incentives to its customers. Known and estimable credits and incentives represent a form of variable consideration, which are estimated at contract inception and generally result in reductions to revenues recognized for a particular contract. These estimates are updated at the end of each reporting period as additional information becomes available. The Company believes that there will not be significant changes to its estimates of variable consideration as of September 30, 2022.

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Other Considerations

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

Cost of Revenues

Cost of revenues are comprised primarily of salaries and other personnel-related costs, including employee benefits, bonuses and stock-based compensation, for employees providing services to the Company's customers. This includes the costs of the Company's 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 the Company's solutions, the amortization of deferred solution and services costs, the amortization of capitalized software development costs, co-location facility costs and depreciation of the Company's data center assets, debit card related pass-through fees, cloud-based hosting services, an allocation of general overhead costs and referral fees. Direct costs of third-party intellectual property include amounts paid for third-party licenses and related maintenance that are incorporated into the Company's software and the amortization of acquired technology from the Company's recent acquisitions, with the costs amortized to cost of revenues over the useful lives of the purchased assets.

The Company capitalizes certain personnel costs directly related to the implementation of its solutions to the extent those costs are recoverable from future revenues. The Company amortizes the costs for an implementation once revenue recognition commences, and the Company amortizes 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.

Software Development Costs

During the application development stage, the Company capitalizes certain development costs associated with internal use software and the Company's SaaS platform. Software development costs include salaries and other personnel-related costs for those employees who are directly associated with and who devote time to developing the Company's software solutions, including employee benefits, stock-based compensation and bonuses attributed to programmers, software engineers, quality control teams and third-party development costs. Capitalized software development costs are computed on an individual product basis. The Company also capitalizes certain costs related to specific enhancements when it is probable the expenditures will result in additional features and functionality. Capitalization ceases for products and enhancements when released or made available. Internal-use software is amortized to cost of revenues over the products' estimated economic lives, which are expected to be three to five years. The costs related to software development are included in intangible assets, net on the condensed consolidated balance sheets. Costs incurred in the preliminary stages of development and maintenance costs are expensed as incurred.

The Company capitalized software development costs in the amount of \$6.2 million and \$1.6 million during the three months ended September 30, 2022 and 2021, respectively, and \$15.7 million and \$3.9 million during the nine months ended September 30, 2022 and 2021, respectively. The Company recognized \$0.9 million and \$0.4 million of amortization for the three months ended September 30, 2022 and 2021, respectively, and \$1.9 million and \$0.8 million of amortization for the nine months ended September 30, 2022 and 2021, respectively.

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Research and Development Costs

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

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

Advertising

Advertising costs of the Company are generally expensed the first time the advertising takes place. Advertising costs were \$1.0 million for each of the three months ended September 30, 2022 and 2021, and \$3.3 million and \$1.7 million for the nine months ended September 30, 2022 and 2021, respectively. The Company entered into a long-term stadium sponsorship agreement in 2020, and beginning in the second quarter of 2021, payments under this arrangement are deferred and expensed as advertising costs on a straight-line basis over the term of the arrangement.

Sales Tax

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

Comprehensive Loss

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

Stock-Based Compensation

Stock options, restricted stock units, and market stock units awarded to employees, directors, and consultants are measured at fair value at each grant date. The Company does not use a forfeiture rate to recognize compensation expense. Generally, options vest 25% on the one-year anniversary of the grant date with the balance vesting monthly over the following 36 months, and restricted stock unit awards vest in four annual installments of 25% each. Market stock units are performance-based awards that vest based on the Company's stockholder return relative to the total stockholder return of the Russell 2000 Index, or Index. Market stock units granted prior to fiscal 2021 vest over a three-year period on the anniversary of the date of grant, generally with anywhere from zero to up to one-third of the target shares of the Company's common stock subject to each market stock unit award eligible to be earned after the first and second years and anywhere from zero to up to 200% of the full target number of shares subject to each market stock unit award eligible to be earned after the completion of the three-year performance period (less any shares earned for years one and two) based on the average price of the Company's common stock relative to the Index during the performance period. Beginning in March 2021, newly granted market stock units vest over a two-year and three-year period, each running from approximately the date of grant, with anywhere from zero to up to one-third of the target shares of the Company's common stock subject to each market stock unit award eligible to be earned after completion of the two-year performance period and anywhere from zero to up to 200% of the full target number of shares subject to each market stock unit award eligible to be earned after the completion of the three-year performance period (less any shares earned for the two-year performance period) based on the average price of the Company's common stock relative to the Index during the performance period. From time to time, the Company may make grants of restricted stock units or market stock units with vesting formulas that vary from those described above.

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

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

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

Effective January 3, 2022, the Company implemented its Employee Stock Purchase Plan, or ESPP, previously approved by the Company's board of directors and stockholders in March 2014. The ESPP generally permits domestic employees who meet certain criteria to purchase the Company's common stock through payroll deductions during six month offering periods. As is permitted under the ESPP, the initial offering period in fiscal 2022 extended for four months from February 1, 2022 through May 31, 2022, with the subsequent offering period extending from June 1, 2022 through November 30, 2022. For the remainder of fiscal 2022 and for all subsequent years, unless otherwise determined by the compensation committee of the board of directors, there will be additional six-month offering periods commencing on each of June 1 and December 1. The ability to purchase shares of the Company's common stock for 85% of the lower of the price on the first day of the offering period or the last day of the offering period represents an option and, therefore, the ESPP is a compensatory plan. Accordingly, stock-based compensation expense is determined based on the grant date fair value as estimated by applying the Black-Scholes option-pricing model and is recognized straight-line over the withholding period. The Company recognizes compensation expense ratably over the requisite service period.

Convertible Senior Notes

In February 2018, the Company issued \$230.0 million principal amount of convertible senior notes due in February 2023, or the 2023 Notes. In June 2019, the Company issued \$316.3 million principal amount of convertible senior notes due in June 2026, or the 2026 Notes. 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. In May 2021, the Company repurchased \$37.1 million principal amount of the 2023 Notes. As of September 30, 2022, the aggregate principal amount outstanding related to the 2023 Notes was \$10.9 million.

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When accounting for the issuance of convertible notes, prior to the adoption of ASU 2020-06, the Company separated each of the convertible notes into liability and equity components. The carrying amount of the liability component was calculated by measuring the fair value, as of the date of issuance, of a similar debt without the conversion feature. The carrying amount of the equity component representing the conversion feature was determined by deducting the fair value of the liability components from the total initial proceeds. The difference between the par amount of the convertible notes and the carrying amount of the liability component represented debt discounts that were amortized to interest expense over the respective terms of the convertible notes at effective interest rates of 5.88%, 5.38% and 5.00% for the 2023 Notes, 2026 Notes and 2025 Notes, respectively. The equity components were not remeasured as long as they continued to meet the conditions for equity classification. In accounting for the issuance costs related to its convertible notes, the Company allocated the total amount of issuance costs incurred to liability and equity components based on their relative values. Issuance costs attributable to the liability components were amortized to interest expense over the respective terms of the convertible notes using the effective interest rate method. The issuance costs attributable to the equity components were netted against the respective equity components in additional paid-in capital.

Upon adoption of ASU 2020-06 on January 1, 2022, the Company reversed the separation of the liability and equity components and accounted for the Notes wholly as debt. The Company also reversed the amortization of the debt discount with the cumulative adjustment to retained earnings on the adoption date. As such, the debt is no longer recorded at a discount and issuance costs are amortized on a straight-line basis, which approximates the effective interest rate method. Refer to the "Recent Accounting Pronouncements" section below for more detail on the adoption impacts.

Leases

The Company determines if a contract contains a lease for accounting purposes at the inception of the arrangement. The Company has elected to apply the practical expedient which allows the Company to account for lease and non-lease components of a contract as a single leasing arrangement. In addition, the Company has elected the practical expedients related to lease classification and the short-term lease exemption, whereby leases with initial terms of one year or less are not capitalized and instead expensed generally on a straight-line basis over the lease term. The Company is primarily a lessee with a lease portfolio comprised mainly of real estate and equipment leases. As of September 30, 2022, the Company had no finance leases.

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

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

Impairment of Long-Lived Assets

Impairment of long-lived assets such as property and equipment, acquired intangible assets, capitalized software development costs and right of use assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. The Company evaluates the recoverability of its long-lived assets by comparing the carrying amount of the asset group to the estimated undiscounted future cash flows. If the carrying value is not recoverable, an impairment is recognized to the extent that the carrying value of the asset group exceeds its fair value.

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Income Taxes

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

The Company evaluates its uncertain tax positions based on a determination of whether and how much of a tax benefit or expense taken by the Company in its tax filings or positions is more likely than not to be realized. The Company believes it has accrued adequate reserves related to its uncertain tax positions; however, ultimate determination of the Company's liability is subject to audit by taxing authorities in the ordinary course of business. The Company records interest and penalties associated with any uncertain tax positions as a component of income tax expense.

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,	
	2022	2021	2022	2021
Numerator:				
Net loss	\$ (27,791)	\$ (31,583)	\$ (76,572)	\$ (87,365)
Denominator:				
Weighted-average common shares outstanding, basic and diluted	57,362	56,559	57,205	56,242
Net loss per common share, basic and diluted	<u>\$ (0.48)</u>	<u>\$ (0.56)</u>	<u>\$ (1.34)</u>	<u>\$ (1.55)</u>

Due to net losses for the three and nine months ended September 30, 2022 and 2021, basic and diluted loss per share were the same, as the effect of all potentially dilutive securities would have been anti-dilutive. The following table sets forth the anti-dilutive common share equivalents for the periods listed:

	As of September 30,	
	2022	2021
Stock options, restricted stock units, and market stock units	3,233	2,296
Shares issuable pursuant to the ESPP	81	—
Shares related to convertible notes	6,256	645
Shares subject to warrants related to the issuance of the 2023 Notes	—	48
	<u>9,570</u>	<u>2,989</u>

Under the modified retrospective method of adoption of ASU 2020-06, the dilutive impact of the convertible senior notes was calculated using the if-converted method for the nine months ended September 30, 2022. The Company's convertible senior notes were calculated using the treasury stock method for the nine months ended September 30, 2021. Refer to discussion within "Recent Accounting Pronouncements" below for further details. The exercise rights of the Warrants issued in connection with the 2023 Notes will have a dilutive impact on net income per share of common stock under the treasury-stock method when the average market price per share of the Company's common stock for a given period exceeds the conversion price of \$78.75 per share. However, since the Company is in a net loss position, there was no dilutive effect on net loss per share of the Company's common stock during any period presented.

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Recent Accounting Pronouncements

In August 2020, the FASB issued ASU No. 2020-06, "Debt - Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging - Contracts in Entity's Own Equity (Subtopic 815-40)" which simplifies the accounting for convertible debt instruments by eliminating the requirement to separate embedded conversion features from the host contract when the conversion features are not required to be accounted for as derivatives under Topic 815, Derivatives and Hedging, or that do not result in substantial premiums accounted for as paid-in capital. In addition, the guidance eliminates the treasury stock method to calculate diluted earnings per share for convertible instruments and requires the use of the if-converted method. The Company adopted the new guidance effective January 1, 2022, using the modified retrospective approach. The impact resulted in an increase to the convertible notes balance of \$114.4 million to reflect the full principal amount of the convertible notes outstanding net of issuance costs, a reduction to the additional paid in capital balance of \$157.0 million to remove the equity component separately recorded for the conversion features associated with the convertible notes, and an increase to the beginning balance of accumulated deficit of \$42.6 million. As a result of the adoption, non-cash interest expense was lower for the three and nine months ended September 30, 2022 and will be lower for the remaining term of the outstanding convertible notes. The adoption had no impact on the Company's condensed consolidated statement of cash flows. Additionally, ASU 2020-06 eliminates the treasury stock method and instead requires the application of the if-converted method to calculate the impact of convertible instruments on diluted earnings per share when instruments may be settled in cash or shares. The required use of the if-converted method did not impact the diluted net loss per share as the Company was in a net loss position. The prior period condensed consolidated financial statements have not been retrospectively adjusted and continue to be reported under the accounting standards in effect for those periods.

In May 2021, the FASB issued ASU No. 2021-04, "Earnings Per Share (Topic 260), Debt - Modifications and Extinguishments (Subtopic 470-50), Compensation - Stock Compensation (Topic 718), and Derivatives and Hedging - Contracts in Entity's Own Equity (Subtopic 815-40)" which clarifies and reduces diversity in the accounting for modifications or exchanges of freestanding equity classified written call options that remain equity classified after modification or exchange. The ASU provides a principles-based framework to determine whether an issuer should recognize the modification or exchange as an adjustment to equity or an expense. The Company has adopted the provisions of the new standard effective January 1, 2022. There was no impact on the Company's condensed consolidated financial statements as of the adoption date.

In October 2021, the FASB issued ASU No. 2021-08, "Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers" which clarifies and reduces diversity in the accounting related to recognition of an acquired contract liability and payment terms and their effect on subsequent revenue recognized by the acquirer. The Company has early adopted the provisions of the new standard effective January 1, 2022. There was no impact on the Company's condensed consolidated financial statements as of the adoption date.

3. Fair Value Measurements

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

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

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

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

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The following table details the fair value hierarchy of the Company's financial assets measured at fair value on a recurring basis as of September 30, 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	\$ 52,032	\$ 52,032	\$ —	\$ —
Certificates of deposit	25,238	—	25,238	—
	<u>\$ 77,270</u>	<u>\$ 52,032</u>	<u>\$ 25,238</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	\$ 55,532	\$ —	\$ 55,532	\$ —
Certificates of deposit	3,581	—	3,581	—
U.S. government securities	143,779	—	143,779	—
	<u>\$ 202,892</u>	<u>\$ —</u>	<u>\$ 202,892</u>	<u>\$ —</u>

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, 2021:

		Fair Value Measurements Using:		
	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level I)	Significant Other Observable Inputs (Level II)	Significant Unobservable Inputs (Level III)
Assets				
Cash Equivalents:				
Money market funds	\$ 170,907	\$ 170,907	\$ —	\$ —
Certificates of deposit	25,090	—	25,090	—
	<u>\$ 195,997</u>	<u>\$ 170,907</u>	<u>\$ 25,090</u>	<u>\$ —</u>
		Quoted Prices in Active Markets for Identical Assets (Level I)	Significant Other Observable Inputs (Level II)	Significant Unobservable Inputs (Level III)
Investments:		Fair Value		
Corporate bonds and commercial paper	\$ 44,219	\$ —	\$ 44,219	\$ —
Certificates of deposit	12,161	—	12,161	—
U.S. government securities	48,498	—	48,498	—
	<u>\$ 104,878</u>	<u>\$ —</u>	<u>\$ 104,878</u>	<u>\$ —</u>

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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).

4. Cash, Cash Equivalents and Investments

The Company's cash, cash equivalents and investments as of September 30, 2022 and December 31, 2021 consisted primarily of cash, U.S. government securities, corporate bonds, commercial paper, certificates of deposit, money market funds and other equity investments.

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 in 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 in 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 in 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, 2022 or 2021.

In 2022, the Company invested in a private financial technology investment fund, classified as an equity investment. This equity investment had a carrying amount of \$0.2 million as of September 30, 2022. 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. As of September 30, 2022, the Company determined there were no other-than-temporary impairments on its equity investment.

As of September 30, 2022 and December 31, 2021, the Company's cash was \$115.3 million and \$126.9 million, respectively.

A summary of the Company's cash equivalents and investments that are carried at fair value as of September 30, 2022 is as follows:

Cash Equivalents:	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Money market funds	\$ 52,032	\$ —	\$ —	\$ 52,032
Certificates of deposit	25,238	—	—	25,238
	<u>\$ 77,270</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 77,270</u>
Investments:	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Corporate bonds and commercial paper	\$ 56,331	\$ —	\$ (799)	\$ 55,532
Certificates of deposit	3,581	—	—	3,581
U.S. government securities	145,566	—	(1,787)	143,779
	<u>\$ 205,478</u>	<u>\$ —</u>	<u>\$ (2,586)</u>	<u>\$ 202,892</u>

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A summary of the Company's cash equivalents and investments that are carried at fair value as of December 31, 2021 is as follows:

Cash Equivalents:	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Money market funds	\$ 170,907	\$ —	\$ —	\$ 170,907
Certificates of deposit	25,090	—	—	25,090
	<u>\$ 195,997</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 195,997</u>
Investments:	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Corporate bonds and commercial paper	\$ 44,282	\$ 3	\$ (66)	\$ 44,219
Certificates of deposit	12,161	—	—	12,161
U.S. government securities	48,658	—	(160)	48,498
	<u>\$ 105,101</u>	<u>\$ 3</u>	<u>\$ (226)</u>	<u>\$ 104,878</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 in the accompanying 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, 2022	December 31, 2021
Due within one year or less	\$ 153,562	\$ 63,935
Due after one year through five years	49,330	40,943
	<u>\$ 202,892</u>	<u>\$ 104,878</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 and its intent to sell, or whether it is more likely than not the Company will be required to sell the investment before recovery of the investment's amortized-cost basis. If the Company determines that 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 in 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, 2022 and December 31, 2021.

The following table presents the fair values and the gross unrealized losses of these available-for-sale debt investments as of September 30, 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
U.S. government securities	\$ 129,194	\$ (1,368)	\$ 14,585	\$ (419)
Corporate bonds and commercial paper	50,611	(687)	4,921	(112)
	<u>\$ 179,805</u>	<u>\$ (2,055)</u>	<u>\$ 19,506</u>	<u>\$ (531)</u>

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The following table presents the fair values and the gross unrealized losses of these available-for-sale debt investments as of December 31, 2021, 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
U.S. government securities	\$ 48,658	\$ (160)	\$ —	\$ —
Corporate bonds and commercial paper	41,500	(66)	—	—
	<u>\$ 90,158</u>	<u>\$ (226)</u>	<u>\$ —</u>	<u>\$ —</u>

5. Goodwill and Intangible Assets

The carrying amount of goodwill was \$512.9 million at each of September 30, 2022 and December 31, 2021. On April 1, 2021, the Company's wholly-owned subsidiary, Q2 Software, Inc. acquired all of the outstanding equity interests of ClickSWITCH Holdings Inc, or ClickSWITCH, a privately-owned provider of digital account switching solutions. As such, the Company added \$50.6 million of goodwill from the ClickSWITCH acquisition. The annual impairment test was performed as of October 31, 2021 and no impairment of goodwill was identified, nor has any impairment of goodwill been recorded to date.

Intangible assets at September 30, 2022 and December 31, 2021 were as follows:

	As of September 30, 2022			As of December 31, 2021		
	Gross Amount	Accumulated Amortization	Net Carrying Amount	Gross Amount	Accumulated Amortization	Net Carrying Amount
Customer relationships	\$ 62,785	\$ (37,823)	\$ 24,962	\$ 62,785	\$ (28,349)	\$ 34,436
Non-compete agreements	13,275	(7,956)	5,319	13,275	(5,898)	7,377
Trademarks	19,870	(7,542)	12,328	19,870	(5,858)	14,012
Acquired technology	152,080	(69,030)	83,050	152,080	(52,220)	99,860
Capitalized software development costs	23,946	(3,408)	20,538	10,969	(4,193)	6,776
	<u>\$ 271,956</u>	<u>\$ (125,759)</u>	<u>\$ 146,197</u>	<u>\$ 258,979</u>	<u>\$ (96,518)</u>	<u>\$ 162,461</u>

The Company recorded intangible assets primarily from various prior business combinations. Intangible assets are amortized on a straight-line basis over their estimated useful lives, which range from two to ten years. Amortization expense included in cost of revenues in the condensed consolidated statements of comprehensive loss was \$5.6 million for each of the three months ended September 30, 2022 and 2021, and \$16.8 million and \$16.4 million for the nine months ended September 30, 2022 and 2021, respectively. Amortization expense included in operating expenses in the condensed consolidated statements of comprehensive loss was \$4.4 million and \$4.5 million for the three months ended September 30, 2022 and 2021, respectively, and \$13.3 million and \$13.5 million for the nine months ended September 30, 2022 and 2021, respectively. The Company amortized \$0.9 million and \$0.4 million of capitalized software development costs for the three months ended September 30, 2022 and 2021, respectively, and \$1.9 million and \$0.8 million for the nine months ended September 30, 2022 and 2021, respectively.

The estimated future amortization expense related to intangible assets as of September 30, 2022 was as follows:

	Amortization
Year Ended December 31,	
2022 (October 1 to December 31)	\$ 11,151
2023	44,102
2024	38,992
2025	26,753
2026	20,184
Thereafter	5,015
Total amortization	<u>\$ 146,197</u>

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6. Commitments and Contingencies

Operating Lease Commitments

The Company leases office space under non-cancellable operating leases for its corporate headquarters in Austin, Texas in two adjacent buildings under separate lease agreements. Pursuant to the first of which the Company leases 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, and pursuant to the second of which the Company leases office space with lease terms of approximately ten years, with the options to extend the leases on the second building. The Company also leases office space in U.S. cities located in Nebraska, Iowa, Georgia, North Carolina, California, 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. Rent expense under operating leases was \$1.8 million and \$2.1 million for the three months ended September 30, 2022 and 2021, respectively, and \$5.7 million and \$5.4 million for the nine months ended September 30, 2022 and 2021, respectively.

During the third quarter of 2022, the Company exited and made available for sublease certain leased office space in Texas. 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 \$2.0 million was recorded to right of use assets and an additional \$2.5 million was recorded to accrued liabilities for expected expenses and fees associated with exiting the leased office space. These charges were recorded within operating expenses on the accompanying condensed consolidated statements of operations.

Maturities of the Company's operating lease liabilities for lease terms in excess of one year at September 30, 2022 were as follows:

	<u>Operating Leases</u>
Year Ended December 31,	
2022 (October 1 to December 31)	\$ 3,158
2023	12,374
2024	11,410
2025	10,480
2026	9,458
Thereafter	31,692
Total lease payments	\$ 78,572
Less: imputed interest	(13,837)
Total operating lease liabilities	\$ 64,735

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

Contractual Commitments

The Company has non-cancelable contractual commitments related to the 2023 Notes, 2025 Notes and the 2026 Notes as well as the related interest. The interest on the 2023 Notes is payable semi-annually on February 15 and August 15 of each year. The interest on the 2025 Notes is payable semi-annually on May 15 and November 15 of each year. The interest on the 2026 Notes is payable semi-annually on June 1 and December 1 of each year. The Company also has non-cancelable contractual commitments for certain third-party products, 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.

In 2020, the Company entered into a long-term stadium sponsorship agreement, beginning in 2021 and ending in 2028, which grants the Company exclusive naming rights, sponsorship, signage, advertising and other promotional rights and benefits. The advertising expense for these rights is amortized on a straight-line basis and recorded in sales and marketing expense in the consolidated statements of comprehensive loss. The prepaid commitment balance, net of amortization, is included in prepaid expenses and other current assets in the consolidated balance sheets.

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Future minimum contractual commitments that have initial or remaining non-cancelable terms in excess of one year at September 30, 2022 were as follows:

	Contractual Commitments
Year Ended December 31,	
2022 (October 1 to December 31)	\$ 8,956
2023	45,662
2024	18,316
2025	359,109
2026	320,936
Thereafter	7,000
Total commitments	<u>\$ 759,979</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. During the three months ended March 31, 2022, the Company received a favorable settlement of an ordinary course dispute and recognized a gain of \$0.7 million included in interest and other income in the accompanying condensed consolidated statements of comprehensive loss.

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.

7. 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.

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In February 2018, the Company issued \$230.0 million principal amount of convertible senior notes due in February 2023, or the 2023 Notes. Interest is 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 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. As of the exchange date, the carrying value of the 2023 Notes, net of unamortized debt discount and issuance costs, was \$42.9 million. The partial exchange of the 2023 Notes resulted in an \$8.9 million loss on early debt extinguishment in fiscal year 2020, of which \$2.0 million consisted of unamortized debt issuance costs.

In May 2021, the Company repurchased \$37.1 million in aggregate principal amount of the 2023 Notes for \$63.7 million in cash. As of the repurchase date, the carrying value of the notes, net of unamortized debt discount and issuance costs, was \$10.0 million. The partial repurchase of the 2023 Notes resulted in a \$1.5 million loss on early debt extinguishment in fiscal year 2021, of which \$0.3 million consisted of unamortized debt issuance costs. The Company may repurchase additional 2023 Notes and/or its 2025 Notes and 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.

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.

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 November 15, 2022, March 1, 2026 or August 15, 2025 for the 2023 Notes, 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 November 15, 2022, March 1, 2026 or August 15, 2025 for the 2023 Notes, 2026 Notes and 2025 Notes, respectively, only under the following circumstances:

- during any calendar quarter commencing after the calendar quarter ending on June 30, 2018, September 30, 2019 or March 30, 2021 (and only during such calendar quarter), for the 2023 Notes, 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;

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- 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.

For more than 20 trading days during the 30 consecutive trading days ended December 31, 2021, the last reported sale price of the Company's common stock exceeded 130% of the conversion price of the 2023 Notes. As a result, the 2023 Notes became convertible at the option of the holders on January 1, 2022 and remained convertible through March 31, 2022. Of the initial 2023 Notes outstanding, 22 notes, with a principal amount of \$1,000 each, have been converted since original issuance of the 2023 Notes through the date of this filing. As of September 30, 2022, the 2023 Notes, 2026 Notes and 2025 Notes were not convertible.

Prior to the adoption of ASU 2020-06 and in accordance with accounting guidance for cash conversion features, the Company valued the liability component for the Notes at the estimated fair value, as of the date of issuance, of a similar debt without the conversion feature. The liability component of the Notes was recorded in long-term debt. The Company recorded the difference between the initial proceeds of the convertible debt and the fair value of the conversion feature to additional paid-in capital as the carrying amount of the equity component. The excess of the principal amount of the liability component over its carrying amount, or the debt discount, was amortized to interest expense at an effective interest rate of 5.88%, 5.38% and 5.00% for the 2023 Notes, 2026 Notes and 2025 Notes, respectively. Upon adoption of ASU 2020-06 on January 1, 2022, the Company reversed the separation of the liability and equity components and accounted for the Notes wholly as debt. The Company also reversed the debt discount, with a cumulative adjustment to retained earnings on the adoption date.

In accounting for the transaction costs for the Notes, prior to the adoption of ASU 2020-06, the Company allocated the costs incurred to the liability and equity components in proportion to the allocation of the proceeds from issuance to the liability and equity components. Issuance costs attributable to the liability component were amortized to expense over the expected life of the Notes using the effective interest method. The liability issuance costs originally totaled \$5.3 million, \$6.4 million and \$5.4 million for the 2023 Notes, 2026 Notes, and 2025 Notes, respectively. Issuance costs attributable to the equity component related to the conversion feature were netted with the equity component. The equity issuance costs originally totaled \$1.5 million, \$2.9 million and \$1.5 million for the 2023 Notes, 2026 Notes and 2025 Notes, respectively. Upon the adoption of ASU 2020-06, the Company reversed the separation of the liability and equity components and accounted for the entire amount as debt issuance costs that will be amortized on a straight-line basis, which approximates the effective interest method, to interest expense over the expected life of the Notes. Refer to Note 2, "Summary of Significant Accounting Policies" for further details on the impact of adoption.

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

	As of September 30, 2022			As of December 31, 2021		
	2023 Notes	2026 Notes	2025 Notes	2023 Notes	2026 Notes	2025 Notes
Liability component:						
Principal	\$ 10,908	\$ 316,250	\$ 350,000	\$ 10,908	\$ 316,250	\$ 350,000
Unamortized debt discount ⁽¹⁾	—	—	—	(634)	(56,918)	(59,436)
Unamortized debt issuance costs ⁽¹⁾	(21)	(4,889)	(4,232)	(64)	(4,276)	(4,232)
Net carrying amount	10,887	311,361	345,768	10,210	255,056	286,332
Equity component:						
Net carrying amount ⁽¹⁾	\$ —	\$ —	\$ —	\$ 2,321	\$ 81,550	\$ 73,109

⁽¹⁾ See Note 2, "Summary of Significant Accounting Policies" for more information regarding the effect of adoption of ASU 2020-06

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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,	
	2022	2021	2022	2021
Contractual interest expense	\$ 722	\$ 722	\$ 2,168	\$ 2,278
Amortization of debt issuance costs ⁽¹⁾	676	505	2,043	1,550
Amortization of debt discount ⁽¹⁾	—	6,344	—	19,398
Total	\$ 1,398	\$ 7,571	\$ 4,211	\$ 23,226

⁽¹⁾ See Note 2, "Summary of Significant Accounting Policies" for more information regarding the effect of adoption of ASU 2020-06

As of September 30, 2022, the remaining period over which the debt issuance costs will be amortized for the 2023 Notes, 2026 Notes and 2025 Notes was 0.4 years, 3.7 years and 3.1 years, respectively.

As of September 30, 2022, the if-converted value of the 2023 Notes, 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, 2022.

Bond Hedges and Warrants Transactions

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

In November 2020, and in connection with the partial exchange of the 2023 Notes, the Company terminated Bond Hedges corresponding to approximately 0.7 million shares for cash proceeds of \$171.7 million. In May 2021, and in connection with the partial repurchase of the 2023 Notes, the Company terminated Bond Hedges corresponding to approximately 0.1 million shares for cash proceeds of \$26.3 million. The proceeds were recorded as an increase to additional paid-in capital in the consolidated balance sheets. As of September 30, 2022, there remained outstanding Bond Hedges giving the Company the option to repurchase approximately 0.1 million shares.

Under the February 2018 Warrant transactions, the Company issued warrants to acquire, subject to anti-dilution adjustments, up to approximately 4.0 million shares over 80 scheduled trading days beginning on May 15, 2023 at an exercise price of \$78.75 per share. If the Warrants are not exercised on their exercise dates, they will expire. Pursuant to the Warrants, if the average market value per share of the Company's common stock for the reporting period, as measured under the Warrants, exceeds the exercise price of the Warrants of \$78.75, the Warrants will have a dilutive effect on the Company's earnings per share, assuming the Company is profitable. The Company received \$22.4 million in cash proceeds from the sale of the Warrants.

In November 2020, and in connection with the partial exchange of the 2023 Notes, the Company terminated Warrants corresponding to approximately 3.2 million shares for total cash payments of \$137.5 million. In May 2021, and in connection with the partial repurchase of the 2023 Notes, the Company terminated Warrants corresponding to approximately 0.6 million shares for total cash payments of \$19.7 million. The termination payment was recorded as a decrease to additional paid-in capital in the consolidated balance sheets. As of September 30, 2022, there remained outstanding Warrants to acquire up to approximately 0.2 million shares.

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

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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 Capped Calls are considered indexed to the Company's stock and are considered equity classified, they are recorded in stockholders' equity on the 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.

8. Stock-Based Compensation

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

As of December 31, 2021, a total of 15,823 shares had been reserved for issuance under the 2014 Plan. The 2014 Plan contains a provision that automatically increases the shares available for issuance under the plan on January 1 of each year subsequent to the 2014 Plan's adoption through 2024, by an amount equal to the smaller of (a) 4.5% of the number of shares of common stock issued and outstanding on the immediately preceding December 31, or (b) an amount determined by the Company's board of directors. On January 1, 2022, 2,562 shares were added to the 2014 Plan in accordance with the annual automatic increase provision of the 2014 Plan. In addition, the 2014 Plan reserve is automatically increased to include any shares issuable upon expiration or termination of options granted under the Company's 2007 Stock Plan, or 2007 Plan, for options that expire or terminate without having been exercised. For the nine months ended September 30, 2022, no shares have been transferred to the 2014 Plan from the 2007 Plan, and as of September 30, 2022, a total of 18,385 shares were allocated for issuance under the 2014 Plan. As of September 30, 2022, options to purchase a total of 2,706 shares of common stock have been granted under the 2014 Plan, 8,603 shares have been reserved under the 2014 Plan for the vesting of restricted stock units and market stock units, 1,705 shares have been returned to the 2014 Plan as a result of termination of options that expired or terminated without having been exercised and restricted stock awards that terminated prior to the awards vesting, and 8,781 shares of common stock remain available for future issuance under the 2014 Plan.

In March 2014, the Company also adopted the 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. 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 smaller 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. The Company has reserved 800 shares of common stock for future issuance under the ESPP. The ESPP's initial four-month purchase period began in February 2022. During the nine months ended September 30, 2022, the Company issued 57 shares under the ESPP. As of September 30, 2022, 743 shares remain authorized and available for issuance under the ESPP.

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In July 2007, the Company adopted the 2007 Plan under which options or stock purchase rights may be granted to employees, consultants and directors. Upon the completion of the Company's initial public offering, or IPO, in March 2014, the board of directors terminated the 2007 Plan in connection with the IPO and all shares that were available for future issuance under the 2007 Plan at such time were transferred to the 2014 Plan. The 2007 Plan will continue to govern the terms and conditions of all outstanding equity awards granted under the 2007 Plan. As of September 30, 2022, no shares remain available for future issuance under the 2007 Plan.

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Cost of revenues	\$ 2,898	\$ 2,728	\$ 8,972	\$ 8,026
Sales and marketing	4,286	2,885	11,624	8,352
Research and development	3,661	3,388	10,363	10,039
General and administrative	5,919	5,068	17,341	14,374
Total stock-based compensation expense	\$ 16,764	\$ 14,069	\$ 48,300	\$ 40,791

9. Income Taxes

In accordance with applicable accounting guidance, the income tax expense for the nine months ended September 30, 2022 is based on the estimated annual effective tax rate for fiscal year 2022. 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 (1.7)% and (1.9)% for the three months ended September 30, 2022 and 2021, respectively, and (2.9)% and (1.1)% for the nine months ended September 30, 2022 and 2021, respectively. For the three and nine months ended September 30, 2022 and 2021, 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. Current income tax expenses and benefits consist primarily of state income tax expense, deferred income tax expense relating to the tax amortization of recently acquired goodwill and 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, 2022, the Company had \$0.5 million in uncertain tax positions representing a \$2.1 million decrease, including an insignificant amount of accrued interest, from the balance at December 31, 2021. Of this amount, \$0.5 million resulted in an income tax expense during the nine months ended September 30, 2022. Operating losses generated in years prior to 2017 remain open to adjustment until the statute of limitations closes for the tax year in which the net operating losses are utilized. The Company's tax years 2018 through 2021 generally remain open to examination by the major taxing jurisdictions to which the Company is subject. The Company is currently under audit by the State of Texas.

10. Subsequent Events

On October 3, 2022, the Company completed its acquisition of all of the outstanding equity interests of Sensibill, an enterprise software company that provides digital expense management solutions, in exchange for approximately \$5.0 million of existing cash. The Company currently is in the process of accounting for this transaction and expects to complete its preliminary allocation of the purchase consideration to the assets acquired and liabilities assumed by the end of the fourth quarter of 2022.

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, 2021, which are included in our Annual Report on Form 10-K, filed with the SEC on February 16, 2022. 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 and adversely from those anticipated in the forward-looking statements. Please see the section entitled "Special Note Regarding Forward Looking Statements" above and the risk factors discussed in our Annual Report on Form 10-K for the year ended December 31, 2021 for 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 secure, cloud-based digital solutions that transform the ways in which financial institutions and other financial services providers engage with account holders and end users, or End Users. We offer our solutions to financial institutions, 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 include a broad and deep portfolio of digital banking solutions; lending solutions; an open technology platform, the Q2 Innovation Studio, that accelerates innovation by enabling a partnership ecosystem on the Q2 platform in which FinTechs and other digital solution providers can embed their offerings and customers can develop their own applications; and a comprehensive banking as a service, or BaaS, solution, which we re-branded as Helix in February 2022, that enables innovative companies to incorporate banking directly into their products. 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 brands, and integrate traditional and emerging financial services, ultimately enhancing End-User acquisition, engagement and retention and improving operational efficiencies and profitability.

The effective delivery and management of secure and advanced digital solutions in the complex and heavily regulated financial services industry requires significant resources, personnel and expertise. We provide digital solutions that are designed to be highly configurable, scalable and adaptable to the specific needs of our customers. We design and develop our solutions with an open platform approach intended to provide comprehensive integration among our solution offerings and our customers' internal and third-party systems. This integrated approach allows our customers to deliver unified and robust financial experiences across digital channels. Our solutions provide our customers the flexibility to configure their digital services in a manner that is consistent with each customer's specific workflows, processes and controls. Our solutions also allow our customers to personalize the digital experiences they deliver to their End Users by extending their individual services and brand requirements across digital channels. Our solutions and our data center infrastructure and resources are 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 secure, advanced digital solutions designed to help our customers and technology partners compete in the complex and heavily regulated financial services industry. Over 17 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. Our portfolio of solutions now spans digital banking, lending, 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, and the COVID-19 pandemic has further accelerated this digital transformation. Second, the continued growth in the number of FinTechs and the innovation they bring to the market is 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 are converging to create 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 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 nine years, our average number of Registered Users (as defined below) 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 the investments we are making are positioning us 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 increasing the number of customers and scope of our customer relationships, we anticipate that greater economies of scale and increased operating leverage will improve our margins over the long term.

We 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, BaaS, digital account opening, account switching and data-driven sales enablement 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 digital financial services in a secure, regulatory-compliant manner. 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, innovative, secure and regulatory-compliant digital 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.

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

Recent Events

The COVID-19 pandemic continues to impact the global economy. While there has been significant economic recovery in certain markets, and demand for our solutions has rebounded, the recovery is characterized by additional uncertainty as a result of the disruption caused by the pandemic, including supply chain constraints in many industries, significant price increases for certain goods and services, rapid increases in demand as economies re-open, rising interest rates, increased employee attrition, skilled labor shortages, wage inflation and businesses and labor markets navigating how they will operate post-pandemic. This disruption to the macroeconomic environment has been exacerbated by the general economic and geopolitical uncertainties caused by Russia's invasion of Ukraine, including increased inflation partially driven by increased energy costs and disruption, instability and volatility in the global markets. In an effort to rein in inflation, the Federal Reserve has raised interest rates multiple times since January 1, 2022, and has signaled openness to future interest rate increases in 2022 and beyond if heightened inflation continues to persist. These interest rate increases in turn have caused increasing concerns of a potential recession as higher interest rates slow down the U.S. and global economy. This volatility in interest rates and associated recession concerns can create challenges for financial institutions in assessing risk in their existing loan portfolios and in making new lending decisions. 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. Financial institutions may respond to this challenging operating environment by reducing or delaying purchases of digital solutions and associated services. During the three months ended September 30, 2022, we observed a decline in customer demand for discretionary aspects of our solutions, namely professional services, which we believe may be related to the challenging macroeconomic environment. We also observed a decline in transactional revenue from our Helix and payment solutions, resulting from decreased usage. We expect continued pressure on our professional services and transactional revenue into 2023 and until the macroeconomic environment stabilizes or improves. As a result of the continued macroeconomic uncertainty, during the three months ended September 30, 2022, we implemented certain measures to further manage our expenses, which we expect to continue into the fourth quarter of 2022 and in 2023. The duration and severity of these events, 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" in our Annual Report on Form 10-K for the year ended December 31, 2021 and in our other SEC filings for further discussion of the impact and possible future impacts of the COVID-19 pandemic and general macroeconomic uncertainty 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 448, 450 and 414 Installed Customers on our digital banking platform as of December 31, 2021, 2020 and 2019, respectively.

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 based on the number of commercial account holders. 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. The rate at which our customers add Registered Users vary significantly 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 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 19.2 million, 17.8 million and 14.6 million Registered Users as of December 31, 2021, 2020 and 2019, respectively. Registered Users as of September 30, 2022 were 20.9 million compared to 19.2 million as of September 30, 2021.

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; 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. In the first half of 2021, our implementations were weighted more heavily, and we expect to see 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 119%, 122% and 120% for the years ended December 31, 2021, 2020 and 2019, respectively.

Annualized Recurring Revenue

We believe Annualized Recurring Revenue, or ARR, provides 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 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 ARR also includes the contracted minimums associated with all contracts in place at the end of the quarter that have 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. ARR does not include revenue from professional services or other sources of revenue that are not deemed to be recurring in nature. ARR is not a forecast of future revenue, which can be impacted by contract start and end dates and renewal rates. ARR should be viewed independently of revenue and deferred revenue as ARR is an operating metric and is not intended to be combined with or replace these items. Our use of ARR has limitations as an analytical tool, and investors should not consider it in isolation. Other companies in our industry may calculate ARR differently, which reduces its usefulness as a comparative measure. Our ARR was \$574.2 million, \$464.2 million and \$400.8 million for the years ended December 31, 2021, 2020 and 2019, respectively. ARR as of September 30, 2022 was \$633.7 million compared to \$537.7 million as of September 30, 2021.

Revenue Churn

We utilize revenue churn, which we previously have referred to simply as churn, to monitor the satisfaction of our customers and evaluate the effectiveness of our business strategies. We define revenue churn as the amount of any monthly recurring revenue losses due to customer cancellations and downgrades, net of upgrades and additions of new solutions, during a year, divided by our monthly recurring revenue at the beginning of the year. Cancellations refer to customers that have either stopped using our services completely or remained a customer but terminated a particular service. Downgrades are a result of customers taking less of a particular service or renewing their contract for identical services at a lower price. We had annual revenue churn of 5.4%, 5.9% and 5.1% for the years ended December 31, 2021, 2020 and 2019, 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, acquisition 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,	
	2022	2021	2022	2021
Revenue:				
GAAP revenue	\$ 144,751	\$ 126,736	\$ 419,131	\$ 366,829
Deferred revenue reduction from purchase accounting	104	554	515	1,677
Total Non-GAAP revenue	<u>\$ 144,855</u>	<u>\$ 127,290</u>	<u>\$ 419,646</u>	<u>\$ 368,506</u>

Non-GAAP Operating Income

We provide non-GAAP operating income excluding such items as deferred revenue reduction from purchase accounting, stock-based compensation, acquisition 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 without regard to 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.
- *Acquisition related costs.* We exclude certain expense items resulting from our evaluation and completion of merger and acquisition opportunities, such as related legal, accounting and consulting fees, as well as changes in fair value of contingent consideration 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, merger and acquisition 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 acquisition 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 these initiatives to optimally align our resources to the businesses that 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,	
	2022	2021	2022	2021
GAAP operating loss	\$ (27,091)	\$ (22,972)	\$ (72,274)	\$ (60,428)
Deferred revenue reduction from purchase accounting	104	554	515	1,677
Stock-based compensation	16,764	14,069	48,300	40,791
Acquisition related costs	352	581	882	2,841
Amortization of acquired technology	5,603	5,604	16,810	16,365
Amortization of acquired intangibles	4,422	4,483	13,266	13,465
Lease and other restructuring charges	5,494	1,244	6,031	2,056
Non-GAAP operating income	<u>\$ 5,648</u>	<u>\$ 3,563</u>	<u>\$ 13,530</u>	<u>\$ 16,767</u>

Adjusted EBITDA

We define adjusted EBITDA as net loss before depreciation, amortization, stock-based compensation, acquisition related costs, provision for income taxes, interest and other (income) expense, net, deferred revenue reduction from purchase accounting, 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 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,	
	2022	2021	2022	2021
Reconciliation of net loss to adjusted EBITDA:				
Net loss	\$ (27,791)	\$ (31,583)	\$ (76,572)	\$ (87,365)
Deferred revenue reduction from purchase accounting	104	554	515	1,677
Stock-based compensation	16,764	14,069	48,300	40,791
Acquisition related costs	352	581	882	2,841
Depreciation and amortization	15,291	14,082	45,237	40,580
Lease and other restructuring charges	5,494	1,244	6,031	2,056
Provision for income taxes	469	596	2,173	909
Loss on extinguishment of debt	—	—	—	1,513
Interest and other (income) expense, net	137	7,761	1,975	24,056
Adjusted EBITDA	<u>\$ 10,820</u>	<u>\$ 7,304</u>	<u>\$ 28,541</u>	<u>\$ 27,058</u>

Components of Operating Results

Revenues

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

Subscription fees are based on the number of solutions purchased by our customers, the number of End Users using the solutions and the number of bill-pay and certain other transactions those users conduct using our solutions in excess of the levels included in our standard subscription fee. Subscription fees are billed monthly, quarterly or annually and are recognized monthly over the term of our customer agreements. The initial term of our digital banking platform agreements averages over five years, although it varies by customer. The structure and terms of 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 transaction services generated when End Users utilize debit cards integrated with its Q2 CorePro API or Q2 Biller Direct products 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 recognize any related implementation services revenues ratably over the initial customer agreement term beginning on the date we commence recognizing subscription fees. Contract asset balances arise primarily when we provide services in advance of billing for those services. Amounts that have been invoiced but not paid are recorded in accounts receivable or other long-term assets, depending on the timing of expected billing, and in revenues or deferred revenues, depending on when control of the service transfers to the customer.

We continue to monitor the impacts the current inflationary environment and a potential global macroeconomic slowdown may have on our business for the remainder of 2022 and into 2023. During the three months ended September 30, 2022, we observed a decline in customer demand for discretionary aspects of our solutions, namely professional services, which we believe may be related to the challenging macroeconomic environment. We also observed a decline in transactional revenue from our Helix and payment solutions, resulting from decreased usage. We expect continued pressure on our professional services and transactional revenue into 2023 and until the macroeconomic environment stabilizes or improves. However, we believe that our subscription revenue will grow at a faster rate in 2023 compared to its growth in 2022. The duration and impacts of the COVID-19 pandemic and associated macroeconomic impacts, including rising interest rates and historically high inflation, and the geopolitical uncertainties caused by Russia's invasion of Ukraine 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 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.

Throughout 2021 and into 2022, we experienced an exceptionally challenging hiring environment, and we have seen and expect continued intense competition for technical talent in the remainder of 2022, which has and may continue to have the potential to drive increased inflation in the wages we have to pay to hire and retain qualified employees and the incremental expenses related to the initial hiring process including an increased utilization of paid third parties to identify and hire talent. Additionally, while throughout 2021 most of our employees continued to work remotely from home and we suspended most non-essential business travel and conference participation, during 2022 some of these activities, including costs associated with onsite attendance, resumed. As a result, we anticipate that we will continue to see a gradual increase in certain costs associated with operating physical locations and facilitating employee travel during the remainder of 2022. 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. As a result of the continued macroeconomic uncertainty, during the three months ended September 30, 2022, we implemented certain measures to further manage our expenses, which we expect to continue into the fourth quarter of 2022 and in 2023.

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.

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, including employee benefits, stock-based compensation and bonuses attributed to programmers, software engineers and quality control teams working on our software solutions, are capitalized and are included in intangible assets, net on the condensed consolidated balance 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 and travel. We expect to continue to incur incremental expenses associated with the growth of our business and to meet increased compliance requirements associated with operating as a 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.

Acquisition Related Costs

Acquisition related costs include compensation expenses related to milestone provisions and retention agreements with certain former shareholders and employees of acquired businesses, which are recognized as earned, changes in fair value of the contingent consideration related to potential acquisition earnout payments and various legal and professional service expenses incurred in connection with merger and acquisition 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 these initiatives to optimally align our resources to the businesses that 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 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 discount prior to the adoption of ASU 2020-06, 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, current income tax expenses and benefits consist primarily of state income tax expense, deferred income tax expense relating to the tax amortization of recently acquired goodwill and income tax expense from foreign operations.

Results of Operations

Condensed Consolidated Statements of Operations

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Revenues ⁽¹⁾	\$ 144,751	\$ 126,736	\$ 419,131	\$ 366,829
Cost of revenues ⁽²⁾	77,895	69,726	228,988	201,278
Gross profit	66,856	57,010	190,143	165,551
Operating expenses:				
Sales and marketing	27,966	22,664	79,709	63,067
Research and development	33,099	30,763	96,062	86,987
General and administrative	22,614	20,352	66,467	57,890
Acquisition related costs	352	476	882	2,514
Amortization of acquired intangibles	4,422	4,483	13,266	13,465
Lease and other restructuring charges ⁽³⁾	5,494	1,244	6,031	2,056
Total operating expenses	93,947	79,982	262,417	225,979
Loss from operations	(27,091)	(22,972)	(72,274)	(60,428)
Total other income (expense), net	(231)	(8,015)	(2,125)	(26,028)
Loss before income taxes	(27,322)	(30,987)	(74,399)	(86,456)
Provision for income taxes	(469)	(596)	(2,173)	(909)
Net loss	\$ (27,791)	\$ (31,583)	\$ (76,572)	\$ (87,365)

⁽¹⁾ Includes deferred revenue reduction from purchase accounting of \$0.1 million and \$0.6 million for the three months ended September 30, 2022 and 2021, respectively, and \$0.5 million and \$1.7 million for the nine months ended September 30, 2022 and 2021, respectively.

⁽²⁾ Includes amortization of acquired technology of \$5.6 million for each of the three months ended September 30, 2022 and 2021, and \$16.8 million and \$16.4 million for the nine months ended September 30, 2022 and 2021, respectively.

⁽³⁾ Lease and other restructuring charges include costs related to the early vacating of various facilities and any related impairment of the right of use assets, partially offset by anticipated sublease income from these facilities and severance and other related compensation charges.

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,	
	2022	2021	2022	2021
Revenues ⁽¹⁾	100.0 %	100.0 %	100.0 %	100.0 %
Cost of revenues ⁽²⁾	53.8	55.0	54.6	54.9
Gross profit	46.2	45.0	45.4	45.1
Operating expenses:				
Sales and marketing	19.3	17.9	19.0	17.2
Research and development	22.9	24.3	22.9	23.7
General and administrative	15.6	16.1	15.9	15.8
Acquisition related costs	0.2	0.4	0.2	0.7
Amortization of acquired intangibles	3.1	3.5	3.2	3.7
Lease and other restructuring charges ⁽³⁾	3.8	1.0	1.4	0.6
Total operating expenses	64.9	63.1	62.6	61.6
Loss from operations	(18.7)	(18.1)	(17.2)	(16.5)
Total other income (expense), net	(0.2)	(6.3)	(0.5)	(7.1)
Loss before income taxes	(18.9)	(24.5)	(17.8)	(23.6)
Provision for income taxes	(0.3)	(0.5)	(0.5)	(0.2)
Net loss	(19.2)%	(24.9)%	(18.3)%	(23.8)%

⁽¹⁾ Includes deferred revenue reduction from purchase accounting of 0.1% and 0.4% for the three months ended September 30, 2022 and 2021, respectively, and 0.1% and 0.5% for the nine months ended September 30, 2022 and 2021, respectively.

⁽²⁾ Includes amortization of acquired technology of 3.9% and 4.4% for the three months ended September 30, 2022 and 2021, respectively, and 4.0% and 4.5% for the nine months ended September 30, 2022 and 2021, respectively.

⁽³⁾ Lease and other restructuring charges include costs related to the early vacating of various facilities and any related impairment of the right of use assets, partially offset by anticipated sublease income from these facilities and severance and other related compensation charges.

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, 2022 and 2021

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	
	2022	2021	\$	(%)	2022	2021	\$	(%)
Revenues	\$ 144,751	\$ 126,736	\$ 18,015	14.2 %	\$ 419,131	\$ 366,829	\$ 52,302	14.3 %

Three Months Ended September 30, 2022 Compared to Three Months Ended September 30, 2021. Revenues increased by \$18.0 million, or 14.2%, from \$126.7 million for the three months ended September 30, 2021 to \$144.8 million for the three months ended September 30, 2022. This increase in revenue was primarily attributable to the delivery of additional solutions to new and existing customers, growth in Registered Users from new and existing customers, and an increase in debit card related pass-through fees.

Nine Months Ended September 30, 2022 Compared to Nine Months Ended September 30, 2021. Revenues increased by \$52.3 million, or 14.3%, from \$366.8 million for the nine months ended September 30, 2021 to \$419.1 million for the nine months ended September 30, 2022. This increase in revenue was primarily attributable to the delivery of additional solutions to new and existing customers, growth in Registered Users from new and existing customers, and an increase in debit card related pass-through fees.

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	
	2022	2021	\$	(%)	2022	2021	\$	(%)
Cost of revenues	\$ 77,895	\$ 69,726	\$ 8,169	11.7 %	\$ 228,988	\$ 201,278	\$ 27,710	13.8 %
Percentage of revenues	53.8 %	55.0 %			54.6 %	54.9 %		

Three Months Ended September 30, 2022 Compared to Three Months Ended September 30, 2021. Cost of revenues increased by \$8.2 million, or 11.7%, from \$69.7 million for the three months ended September 30, 2021 to \$77.9 million for the three months ended September 30, 2022. This increase was primarily attributable to a \$2.8 million increase in third-party costs related to intellectual property included in our solutions, transaction processing costs incurred as a result of the increase in End Users from new and existing customers, as well as a higher mix of debit card related pass-through fees, a \$2.5 million increase in personnel costs due to an increase in the number of personnel who provide implementation and customer support services and maintain our data centers and other technical infrastructure, a \$1.6 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 \$0.8 million increase from amortization of capitalized implementation services and a \$0.4 million increase in overhead costs and other discretionary and travel-related expenses.

Nine Months Ended September 30, 2022 Compared to Nine Months Ended September 30, 2021. Cost of revenues increased by \$27.7 million, or 13.8%, from \$201.3 million for the nine months ended September 30, 2021 to \$229.0 million for the nine months ended September 30, 2022. This increase was primarily attributable to a \$10.2 million increase in third-party costs related to intellectual property included in our solutions, transaction processing costs incurred as a result of the increase in End Users from new and existing customers, as well as a higher mix of debit card related pass-through fees, a \$7.6 million increase in personnel and hiring costs due to an increase in the number of personnel who provide implementation and customer support services and maintain our data centers and other technical infrastructure, a \$5.4 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 \$2.0 million increase in overhead costs and other discretionary and travel-related expenses, a \$1.8 million increase from amortization of capitalized implementation services and a \$0.4 million increase from amortization of acquired customer technology resulting from the ClickSWITCH business acquired in the second quarter of 2021.

We defer certain personnel and other costs directly related to the implementation of our solutions to the extent those costs are recoverable from future revenues. However, a substantial portion of our implementation costs are not eligible for deferral and, as a result, are expensed in the period incurred. Costs related to implementations that have been deferred are amortized over the expected period of customer benefit. Additionally, we invest in personnel, business processes and systems infrastructure to standardize our business processes and drive future efficiency in our implementations, customer support and data center operations. We expect these investments will increase cost of revenues in absolute dollars as we continue to make investments in capacity, process improvement 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	
	2022	2021	\$	(%)	2022	2021	\$	(%)
Sales and marketing	\$ 27,966	\$ 22,664	\$ 5,302	23.4 %	\$ 79,709	\$ 63,067	\$ 16,642	26.4 %
Percentage of revenues	19.3 %	17.9 %			19.0 %	17.2 %		

Three Months Ended September 30, 2022 Compared to Three Months Ended September 30, 2021. Sales and marketing expenses increased by \$5.3 million, or 23.4%, from \$22.7 million for the three months ended September 30, 2021 to \$28.0 million for the three months ended September 30, 2022. This increase was primarily attributable to a \$4.4 million increase in personnel costs due to the growth of our sales and marketing organizations to support current and projected bookings and revenue growth, a \$0.4 million increase in travel-related expenses and a \$0.2 million increase in overhead costs.

Nine Months Ended September 30, 2022 Compared to Nine Months Ended September 30, 2021. Sales and marketing expenses increased by \$16.6 million, or 26.4%, from \$63.1 million for the nine months ended September 30, 2021 to \$79.7 million for the nine months ended September 30, 2022. This increase was primarily attributable to an \$11.3 million increase in personnel and hiring costs due to the growth of our sales and marketing organizations to support current and projected bookings and revenue growth, a \$2.5 million increase in other discretionary expenses, including stadium sponsorship expenses, a \$1.4 million increase in travel-related expenses and a \$1.1 million increase in overhead costs.

We anticipate that sales and marketing expenses will continue to increase in absolute dollars in the future as we add personnel to support our revenue growth and as we increase 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. While we anticipate sales and marketing expenses as a percentage of revenue may fluctuate on a quarter-over-quarter basis, we expect such expenses to decline as a percentage of our revenues over the longer-term as our revenues grow.

Research and Development

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2022	2021	\$	(%)	2022	2021	\$	(%)
Research and development	\$ 33,099	\$ 30,763	\$ 2,336	7.6 %	\$ 96,062	\$ 86,987	\$ 9,075	10.4 %
Percentage of revenues	22.9 %	24.3 %			22.9 %	23.7 %		

Three Months Ended September 30, 2022 Compared to Three Months Ended September 30, 2021. Research and development expenses increased by \$2.3 million, or 7.6%, from \$30.8 million for the three months ended September 30, 2021 to \$33.1 million for the three months ended September 30, 2022. This increase was primarily attributable to a \$5.3 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 \$0.4 million increase in overhead and other discretionary and travel-related expenses. These increases were partially offset by a \$3.5 million decrease as a result of increased capitalized software development costs.

Nine Months Ended September 30, 2022 Compared to Nine Months Ended September 30, 2021. Research and development expenses increased by \$9.1 million, or 10.4%, from \$87.0 million for the nine months ended September 30, 2021 to \$96.1 million for the nine months ended September 30, 2022. This increase was primarily attributable to a \$15.8 million increase in personnel and hiring costs as a result of the growth in our research and development organization to support continued enhancements to our solutions and a \$2.4 million increase in overhead and other discretionary and travel-related expenses. These increases were partially offset by a \$9.5 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 banking offerings, including functionality such as digital account opening and online lending.

General and Administrative

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2022	2021	\$	(%)	2022	2021	\$	(%)
General and administrative	\$ 22,614	\$ 20,352	\$ 2,262	11.1 %	\$ 66,467	\$ 57,890	\$ 8,577	14.8 %
Percentage of revenues	15.6 %	16.1 %			15.9 %	15.8 %		

Three Months Ended September 30, 2022 Compared to Three Months Ended September 30, 2021. General and administrative expenses increased by \$2.3 million, or 11.1%, from \$20.4 million for the three months ended September 30, 2021 to \$22.6 million for the three months ended September 30, 2022. The increase in general and administrative expenses was primarily attributable to a \$2.0 million increase in personnel costs to support the growth of our business and a \$0.2 million increase in overhead and other discretionary and travel-related expenses.

Nine Months Ended September 30, 2022 Compared to Nine Months Ended September 30, 2021. General and administrative expenses increased by \$8.6 million, or 14.8%, from \$57.9 million for the nine months ended September 30, 2021 to \$66.5 million for the nine months ended September 30, 2022. The increase in general and administrative expenses was primarily attributable to a \$6.1 million increase in personnel and hiring costs to support the growth of our business, a \$1.5 million increase in overhead and other discretionary and travel-related expenses and a \$0.7 million increase in bad debt expense.

General and administrative expenses consist primarily of salaries 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, 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.

Acquisition Related Costs

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2022	2021	\$	(%)	2022	2021	\$	(%)
Acquisition related costs	\$ 352	\$ 476	\$ (124)	(26.1)%	\$ 882	\$ 2,514	\$ (1,632)	(64.9)%
Percentage of revenues	0.2 %	0.4 %			0.2 %	0.7 %		

Three Months Ended September 30, 2022 Compared to Three Months Ended September 30, 2021. Acquisition related costs decreased by \$0.1 million, or 26.1%, from \$0.5 million for the three months ended September 30, 2021 to \$0.4 million for the three months ended September 30, 2022. Acquisition related costs for the three months ended September 30, 2022 consisted of various legal and professional expenses incurred in connection with merger and acquisition activities. Acquisition related costs for the three months ended September 30, 2021 included compensation expense related to the retention bonuses for employees of previous acquisitions.

Nine Months Ended September 30, 2022 Compared to Nine Months Ended September 30, 2021. Acquisition related costs decreased by \$1.6 million, or 64.9%, from \$2.5 million for the nine months ended September 30, 2021 to \$0.9 million for the nine months ended September 30, 2022. Acquisition related costs for the nine months ended September 30, 2022 consisted of various legal and professional expenses incurred in connection with merger and acquisition activities. Acquisition related costs for the nine months ended September 30, 2021 included \$1.4 million of compensation expense related to the retention bonuses for employees of previous acquisitions and \$1.1 million of legal, professional services and other costs related to our acquisition of ClickSWITCH on April 1, 2021.

Amortization of Acquired Intangibles

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2022	2021	\$	(%)	2022	2021	\$	(%)
Amortization of acquired intangibles	\$ 4,422	\$ 4,483	\$ (61)	(1.4)%	\$ 13,266	\$ 13,465	\$ (199)	(1.5)%
Percentage of revenues	3.1 %	3.5 %			3.2 %	3.7 %		

Three Months Ended September 30, 2022 Compared to Three Months Ended September 30, 2021. Amortization of acquired intangibles decreased by \$0.1 million, or 1.4%, from the three months ended September 30, 2021 to the three months ended September 30, 2022. The acquired intangible assets are related to previously disclosed business combinations. The decrease was due to elimination of amortization of intangible assets that became fully amortized.

Nine Months Ended September 30, 2022 Compared to Nine Months Ended September 30, 2021. Amortization of acquired intangibles decreased by \$0.2 million, or 1.5%, from the nine months ended September 30, 2021 to the nine months ended September 30, 2022. The acquired intangible assets are related to previously disclosed business combinations. The decrease was due to elimination of amortization of intangible assets that became fully amortized.

Lease and Other Restructuring Charges

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2022	2021	\$	(%)	2022	2021	\$	(%)
Lease and other restructuring charges	\$ 5,494	\$ 1,244	\$ 4,250	341.6 %	\$ 6,031	\$ 2,056	\$ 3,975	193.3 %
Percentage of revenues	3.8 %	1.0 %			1.4 %	0.6 %		

Three Months Ended September 30, 2022 Compared to Three Months Ended September 30, 2021. Lease and other restructuring charges increased by \$4.3 million, or 341.6%, from \$1.2 million for the three months ended September 30, 2021 to \$5.5 million for the three months ended September 30, 2022. During the three months ended September 30, 2022, the charges included \$5.2 million primarily related to the vacating of a facility in Texas, including the associated impairment of the right of use asset, updated assessments and ongoing expenses of other vacated facilities, as well as \$0.3 million related to severance and other related compensation charges associated with eliminating certain positions in connection with these initiatives to optimally align our resources to the businesses that will drive the most long-term value. During the three months ended September 30, 2021, the charges included costs related to an updated assessment and vacating of facilities, partially offset by anticipated sublease income from these facilities.

Nine Months Ended September 30, 2022 Compared to Nine Months Ended September 30, 2021. Lease and other restructuring charges increased by \$4.0 million or 193.3%, from \$2.1 million for the nine months ended September 30, 2021 to \$6.0 million for the nine months ended September 30, 2022. During the nine months ended September 30, 2022, the charges included \$5.7 million primarily related to the vacating of a facility in Texas, including the associated impairment of the right of use asset, updated assessments and ongoing expenses of other vacated facilities, as well as \$0.3 million related to severance and other related compensation charges associated with eliminating certain positions in connection with these initiatives to optimally align our resources to the businesses that will drive the most long-term value. During the nine months ended September 30, 2021, the charges included costs related to an updated assessment and vacating of facilities, partially offset by anticipated sublease income from these facilities.

Total Other Income (Expense), Net

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2022	2021	\$	(%)	2022	2021	\$	(%)
Total other income (expense), net	\$ (231)	\$ (8,015)	\$ 7,784	97.1 %	\$ (2,125)	\$ (26,028)	\$ 23,903	91.8 %
Percentage of revenues	(0.2)%	(6.3)%			(0.5)%	(7.1)%		

Three Months Ended September 30, 2022 Compared to Three Months Ended September 30, 2021. Total other income (expense), net represented a net expense of \$0.2 million for the three months ended September 30, 2022 compared to a net expense of \$8.0 million for the three months ended September 30, 2021. The change was primarily due to a \$6.3 million decrease in non-cash interest expense related to our convertible notes as a result of the adoption of ASU No. 2020-06 on January 1, 2022. Under ASU No. 2020-06, convertible notes will no longer be separated into a debt and equity component, thereby eliminating the discount associated with the equity component and the interest expense associated with such a discount. We also had a \$1.2 million increase in income from cash and investments.

Nine Months Ended September 30, 2022 Compared to Nine Months Ended September 30, 2021. Total other income (expense), net represented a net expense of \$2.1 million for the nine months ended September 30, 2022 compared to a net expense of \$26.0 million for the nine months ended September 30, 2021. The change was primarily due to a \$19.3 million decrease in non-cash interest expense related to our convertible notes as a result of the aforementioned adoption of ASU No. 2020-06 on January 1, 2022, a \$1.6 million increase in income from cash and investments and a \$0.7 million increase in other income related to a gain resulting from a favorable settlement of an ordinary course dispute. Additional increases resulted from a \$1.5 million loss from the early extinguishment of a portion of our 2023 Notes and a \$0.3 million decrease in loss on disposal of long-lived assets during the comparable period ended September 30, 2021.

Provision for income taxes

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2022	2021	\$	(%)	2022	2021	\$	(%)
Provision for income taxes	\$ (469)	\$ (596)	\$ 127	(21.3)%	\$ (2,173)	\$ (909)	\$ (1,264)	139.1 %
Percentage of revenues	(0.3)%	(0.5)%			(0.5)%	(0.2)%		

Three Months Ended September 30, 2022 Compared to Three Months Ended September 30, 2021. Total provision for income taxes represented an expense of \$0.5 million for the three months ended September 30, 2022 compared to an expense of \$0.6 million for the three months ended September 30, 2021. As a result of our current net operating loss position, 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. The income tax expense for three months ended September 30, 2021 consisted primarily of \$0.4 million in foreign and state income tax expense and \$0.2 million in federal income tax relating to the tax amortization of recently acquired goodwill.

Nine Months Ended September 30, 2022 Compared to Nine Months Ended September 30, 2021. Total provision for income taxes represented an expense of \$2.2 million for the nine months ended September 30, 2022 compared to an expense of \$0.9 million for the nine months ended September 30, 2021. As a result of our current net operating loss position, income tax expense for the nine months ended September 30, 2022 consisted primarily of \$1.1 million in state income tax which includes \$0.5 million related to uncertain tax positions, \$0.6 million in federal income tax relating to tax amortization of recently acquired goodwill and \$0.5 million in foreign income tax. The income tax expense for the nine months ended September 30, 2021 consist primarily of federal income taxes of \$0.7 million in income tax expense from foreign operations and \$0.6 million relating to the tax amortization of recently acquired goodwill, partially offset by \$0.3 million in state income tax benefit and \$0.1 million in income tax benefit for the acquisition of ClickSWITCH.

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 and a potential global macroeconomic slowdown may have on our business for the remainder of 2022 and in 2023. The duration and impacts of the COVID-19 pandemic and associated macroeconomic impacts, including rising interest rates and historically high inflation, and the geopolitical uncertainties caused by Russia's invasion of Ukraine 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, 2022, our principal sources of liquidity were cash, cash equivalents and investments of \$395.7 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,	
	2022	2021
Net cash provided by (used in):		
Operating activities	\$ (8,246)	\$ (8,386)
Investing activities	(125,523)	(53,826)
Financing activities	3,254	(51,230)
Net decrease in cash, cash equivalents, and restricted cash	<u>\$ (130,515)</u>	<u>\$ (113,442)</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, 2022, our net cash and cash equivalents used in operating activities was \$8.2 million, which consisted of a net loss of \$76.6 million and cash outflows from changes in operating assets and liabilities of \$54.8 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.

For the nine months ended September 30, 2021, our net cash and cash equivalents used in operating activities was \$8.4 million, which consisted of a net loss of \$87.4 million and cash outflows from changes in operating assets and liabilities of \$46.6 million, offset by non-cash adjustments of \$125.6 million. The primary drivers of the changes in operating assets and liabilities related to a \$19.9 million increase in deferred solution and implementation costs due to our increased customer growth and new and existing customers undergoing implementations during the period and a \$16.7 million increase in accounts receivable primarily due to the timing of annual customer billings at the end of the period. Non-cash adjustments primarily consisted of stock-based compensation, depreciation and amortization, amortization of deferred implementation and deferred solution and other costs and amortization of debt discount and 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, 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.

For the nine months ended September 30, 2021, our net cash used in investing activities was \$53.8 million, consisting of \$88.9 million from purchases of investments, \$64.7 million for the acquisition of ClickSWITCH, net of cash acquired, \$16.1 million for the purchase of property and equipment and \$3.9 million from capitalized software development costs, partially offset by \$119.7 million from maturities of investments.

Cash Flows from Financing Activities

Our financing activities for the nine months ended September 30, 2022 consisted solely of cash received from exercises of stock options and contributions to our Employee Stock Purchase Plan, or ESPP, to purchase our common stock of \$3.3 million.

For the nine months ended September 30, 2021, our net cash used in financing activities was \$51.2 million, consisting of \$63.7 million for the partial repurchase of the 2023 Notes, partially offset by \$6.6 million of net proceeds received in connection with the early termination of bond hedges and warrants related to the 2023 Notes and \$5.8 million of cash received from the exercise of stock options.

Contractual Obligations and Commitments

Our principal commitments consist of the 2023 Notes, 2025 Notes, 2026 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 7 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, 2022 can be found in Note 6 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 Estimates

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

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

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

During the nine months ended September 30, 2022, except for the adoption of ASU 2020-06 and implementation of our ESPP program, there were no significant changes in our critical accounting policies or estimates, which were included in the consolidated financial statements and the accompanying notes for the fiscal year ended December 31, 2021, which are included in our Annual Report on Form 10-K, filed with the SEC on February 16, 2022.

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

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

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

Interest Rate Risk

We have cash and cash equivalents held primarily in cash and money market funds. In addition, we have marketable securities which 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 2022 or 2021, our interest income would not have been materially affected. As of September 30, 2022, we had an outstanding principal amount of \$327.2 million of 2023 Notes and 2026 Notes, which each have a fixed annual interest rate of 0.75% and an outstanding principal amount of \$350.0 million of 2025 Notes with a fixed annual interest rate of 0.125%.

Foreign Currency Risk

During 2018, we commenced international operations. As a result, our results of operations and cash flows are subject to fluctuations due to changes in foreign currency exchange rates. As of September 30, 2022, our most significant currency exposures were the Indian rupee, British pound, and Australian dollar. As of September 30, 2022, we had operating subsidiaries in India, the United Kingdom and Australia. Due to the relatively low volume of payments made by us through these foreign subsidiaries, we do not believe we have significant exposure to foreign currency exchange risks. However, fluctuations in currency exchange rates could harm our results of operations in the future.

We currently do not use derivative financial instruments to mitigate foreign currency exchange risks. We will continue to review this 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, 2022, 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.

Reference is made to the factors set forth under the caption "Special Note Regarding Forward-Looking Statements" above in this Quarterly Report on Form 10-Q and other risk factors described in Part I, Item 1A of our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, which are incorporated herein by reference. There have been no material changes from the risk factors disclosed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

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.

None.

Item 6. Exhibits.

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

EXHIBIT INDEX

Exhibit Number	Description of Document
3.1	* Fifth Amended and Restated Certificate of Incorporation of the Registrant (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the Securities 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 7, 2022	Q2 HOLDINGS, INC. By: <u>/s/ MATTHEW P. FLAKE</u> Matthew P. Flake <i>President and Chief Executive Officer</i> <i>(Principal Executive Officer)</i>
November 7, 2022	By: <u>/s/ DAVID J. MEHOK</u> David J. Mehok <i>Chief Financial Officer</i> <i>(Principal Financial and Accounting Officer)</i>

**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 7, 2022

/s/ MATTHEW P. FLAKE
Matthew P. Flake
President and 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 7, 2022

/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 President and Chief Executive Officer of Q2 Holdings, Inc. (the “Company”), does hereby certify under the standards set forth and solely for the purposes of 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report on Form 10-Q of the Company for the three months ended September 30, 2022 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 7, 2022

/s/ MATTHEW P. FLAKE

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

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

**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, 2022 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 7, 2022

/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.