

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

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2023
OR

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

For the transition period from _____ to _____
Commission file number 0-27512

CSG SYSTEMS INTERNATIONAL, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation or organization)

47-0783182
(I.R.S. Employer
Identification No.)

169 Inverness Dr W, Suite 300
Englewood, Colorado 80112
(Address of principal executive offices, including zip code)
(303) 200-2000
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, Par Value \$0.01 Per Share	CSGS	NASDAQ Stock Market LLC

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, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

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

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

As of October 30, 2023, there were 29,671,105 shares of the registrant's common stock outstanding.

CSG SYSTEMS INTERNATIONAL, INC.
FORM 10-Q for the Quarter Ended September 30, 2023
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CSG SYSTEMS INTERNATIONAL, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS - UNAUDITED
(in thousands)

	September 30, 2023	December 31, 2022
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 146,730	\$ 150,365
Short-term investments	-	71
Total cash, cash equivalents, and short-term investments	146,730	150,436
Settlement and merchant reserve assets	193,371	238,653
Trade accounts receivable:		
Billed, net of allowance of \$4,731 and \$5,528	275,161	274,189
Unbilled	83,612	52,830
Income taxes receivable	2,492	1,270
Other current assets	58,701	48,577
Total current assets	760,067	765,955
Non-current assets:		
Property and equipment, net of depreciation of \$118,424 and \$105,466	68,029	71,787
Operating lease right-of-use assets	37,196	49,687
Software, net of amortization of \$159,451 and \$150,337	16,741	22,774
Goodwill	302,996	304,036
Acquired customer contracts, net of amortization of \$127,490 and \$120,080	37,932	45,417
Customer contract costs, net of amortization of \$38,174 and \$30,601	53,336	54,735
Deferred income taxes	46,271	26,206
Other assets	7,034	7,956
Total non-current assets	569,535	582,598
Total assets	\$ 1,329,602	\$ 1,348,553
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Current portion of long-term debt	\$ 22,500	\$ 37,500
Operating lease liabilities	16,915	21,012
Customer deposits	33,084	40,472
Trade accounts payable	42,623	47,720
Accrued employee compensation	64,313	68,321
Settlement and merchant reserve liabilities	191,637	237,810
Deferred revenue	61,419	46,033
Income taxes payable	2,211	5,455
Other current liabilities	26,831	22,886
Total current liabilities	461,533	527,209
Non-current liabilities:		
Long-term debt, net of unamortized discounts of \$16,502 and \$2,656	535,998	375,469
Operating lease liabilities	37,574	53,207
Deferred revenue	20,828	21,991
Income taxes payable	3,243	3,410
Deferred income taxes	128	117
Other non-current liabilities	9,807	11,901
Total non-current liabilities	607,578	466,095
Total liabilities	1,069,111	993,304
Stockholders' equity:		
Preferred stock, par value \$.01 per share; 10,000 shares authorized; zero shares issued and outstanding	-	-
Common stock, par value \$.01 per share; 100,000 shares authorized; 29,726 and 31,269 shares outstanding	713	708
Additional paid-in capital	483,063	495,189
Treasury stock, at cost; 40,202 and 38,210 shares	(1,125,897)	(1,018,034)
Accumulated other comprehensive income (loss):		
Unrealized gain on short-term investments, net of tax	1	1
Cumulative foreign currency translation adjustments	(60,773)	(58,830)
Accumulated earnings	963,384	936,215
Total stockholders' equity	260,491	355,249
Total liabilities and stockholders' equity	\$ 1,329,602	\$ 1,348,553

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

CSG SYSTEMS INTERNATIONAL, INC.
CONDENSED CONSOLIDATED STATEMENTS OF INCOME - UNAUDITED
(in thousands, except per share amounts)

	Quarter Ended		Nine Months Ended	
	September 30, 2023	September 30, 2022	September 30, 2023	September 30, 2022
Revenue	\$ 286,868	\$ 273,308	\$ 871,934	\$ 799,876
Cost of revenue (exclusive of depreciation, shown separately below)	152,734	138,462	458,897	415,014
Other operating expenses:				
Research and development	35,292	35,754	107,401	103,365
Selling, general and administrative	59,097	59,026	180,930	173,833
Depreciation	5,862	5,896	17,155	17,685
Restructuring and reorganization charges	1,152	14,193	8,421	46,304
Total operating expenses	254,137	253,331	772,804	756,201
Operating income	32,731	19,977	99,130	43,675
Other income (expense):				
Interest expense	(8,036)	(4,328)	(23,092)	(10,286)
Interest and investment income, net	1,175	281	2,516	537
Loss on derivative liability upon debt conversion	-	-	-	(7,456)
Other, net	813	2,790	(3,047)	6,044
Total other	(6,048)	(1,257)	(23,623)	(11,161)
Income before income taxes	26,683	18,720	75,507	32,514
Income tax provision	(7,989)	(6,239)	(21,931)	(8,603)
Net income	\$ 18,694	\$ 12,481	\$ 53,576	\$ 23,911
Weighted-average shares outstanding:				
Basic	30,097	30,941	30,381	31,219
Diluted	30,284	31,159	30,540	31,487
Earnings per common share:				
Basic	\$ 0.62	\$ 0.40	\$ 1.76	\$ 0.77
Diluted	0.62	0.40	1.75	0.76

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

CSG SYSTEMS INTERNATIONAL, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS) - UNAUDITED
(in thousands)

	Quarter Ended		Nine Months Ended	
	September 30, 2023	September 30, 2022	September 30, 2023	September 30, 2022
Net income	\$ 18,694	\$ 12,481	\$ 53,576	\$ 23,911
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustments	(6,495)	(17,919)	(1,943)	(35,101)
Unrealized holding gain on short-term investments arising during period	-	3	-	6
Other comprehensive loss, net of tax	(6,495)	(17,916)	(1,943)	(35,095)
Total comprehensive income (loss), net of tax	\$ 12,199	\$ (5,435)	\$ 51,633	\$ (11,184)

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

CSG SYSTEMS INTERNATIONAL, INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY - UNAUDITED
(in thousands)

	Shares of Common Stock Outstanding	Common Stock	Additional Paid-in Capital	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Accumulated Earnings	Total Stockholders' Equity
For the Nine Months Ended September 30, 2023:							
BALANCE, January 1, 2023	31,269	\$ 708	\$ 495,189	\$ (1,018,034)	\$ (58,829)	\$ 936,215	\$ 355,249
Comprehensive income:							
Net income	-	-	-	-	-	20,928	-
Foreign currency translation adjustments	-	-	-	-	2,843	-	-
Total comprehensive income							23,771
Repurchase of common stock	(166)	(2)	(9,304)	-	-	-	(9,306)
Issuance of common stock pursuant to employee stock purchase plan	19	-	893	-	-	-	893
Issuance of restricted common stock pursuant to stock-based compensation plans	574	6	(6)	-	-	-	-
Cancellation of restricted common stock issued pursuant to stock-based compensation plans	(18)	-	-	-	-	-	-
Stock-based compensation expense	-	-	6,412	-	-	-	6,412
Dividends	-	-	-	-	-	(8,796)	(8,796)
BALANCE, March 31, 2023	31,678	712	493,184	(1,018,034)	(55,986)	948,347	368,223
Comprehensive income:							
Net income	-	-	-	-	-	13,954	-
Foreign currency translation adjustments	-	-	-	-	1,709	-	-
Total comprehensive income							15,663
Repurchase of common stock	(2)	-	(112)	-	-	-	(112)
Issuance of common stock pursuant to employee stock purchase plan	18	-	771	-	-	-	771
Issuance of restricted common stock pursuant to stock-based compensation plans	64	1	(1)	-	-	-	-
Cancellation of restricted common stock issued pursuant to stock-based compensation plans	(7)	-	-	-	-	-	-
Stock-based compensation expense	-	-	7,644	-	-	-	7,644
Dividends	-	-	-	-	-	(8,796)	(8,796)
BALANCE, June 30, 2023	31,751	713	501,486	(1,018,034)	(54,277)	953,423	383,311
Comprehensive income:							
Net income	-	-	-	-	-	18,694	-
Foreign currency translation adjustments	-	-	-	-	(6,495)	-	-
Total comprehensive income							12,199
Repurchase of common stock	(1,994)	-	(144)	(107,863)	-	-	(108,007)
Issuance of common stock pursuant to employee stock purchase plan	20	-	877	-	-	-	877
Issuance of restricted common stock pursuant to stock-based compensation plans	12	-	-	-	-	-	-
Cancellation of restricted common stock issued pursuant to stock-based compensation plans	(63)	-	-	-	-	-	-
Stock-based compensation expense	-	-	7,197	-	-	-	7,197
Purchase of capped call transactions (net of tax)	-	-	(26,353)	-	-	-	(26,353)
Dividends	-	-	-	-	-	(8,733)	(8,733)
BALANCE, September 30, 2023	29,726	\$ 713	\$ 483,063	\$ (1,125,897)	\$ (60,772)	\$ 963,384	\$ 260,491

	Shares of Common Stock Outstanding	Common Stock	Additional Paid-in Capital	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Accumulated Earnings	Noncontrolling Interest	Total Stockholders' Equity
For the Nine Months Ended September 30, 2022:								
BALANCE, January 1, 2022	32,495	\$ 705	\$ 488,303	\$ (930,106)	\$ (38,353)	\$ 916,060	\$ 3,635	\$ 440,244
Comprehensive income:								
Net income	-	-	-	-	-	6,113	-	-
Unrealized loss on short-term investments, net of tax	-	-	-	-	(2)	-	-	-
Foreign currency translation adjustments	-	-	-	-	(1,162)	-	-	-
Total comprehensive income	-	-	-	-	-	-	-	4,929
Repurchase of common stock	(389)	(1)	(7,804)	(15,996)	-	-	-	(23,801)
Issuance of common stock pursuant to employee stock purchase plan	12	-	650	-	-	-	-	650
Issuance of restricted common stock pursuant to stock-based compensation plans	476	5	(5)	-	-	-	-	-
Cancellation of restricted common stock issued pursuant to stock-based compensation plans	(34)	-	-	-	-	-	-	-
Stock-based compensation expense	-	-	5,581	-	-	-	-	5,581
Settlement of convertible debt securities, net of tax	-	-	(4,845)	-	-	-	-	(4,845)
Adjustments due to adoption of new accounting standard	-	-	(9,802)	-	-	9,802	-	-
Dividends	-	-	-	-	-	(8,586)	-	(8,586)
BALANCE, March 31, 2022	32,560	709	472,078	(946,102)	(39,537)	923,389	3,635	414,172
Comprehensive income:								
Net income	-	-	-	-	-	5,317	-	-
Unrealized gain on short-term investments, net of tax	-	-	-	-	5	-	-	-
Foreign currency translation adjustments	-	-	-	-	(16,000)	-	-	-
Total comprehensive loss	-	-	-	-	-	-	-	(10,678)
Repurchase of common stock	(362)	-	(116)	(21,557)	-	-	-	(21,673)
Issuance of common stock pursuant to employee stock purchase plan	15	-	773	-	-	-	-	773
Issuance of restricted common stock pursuant to stock-based compensation plans	42	1	(1)	-	-	-	-	-
Cancellation of restricted common stock issued pursuant to stock-based compensation plans	(60)	(1)	1	-	-	-	-	-
Stock-based compensation expense	-	-	6,536	-	-	-	-	6,536
Dividends	-	-	-	-	-	(8,473)	-	(8,473)
Write-off of noncontrolling interest	-	-	-	-	-	-	(3,635)	(3,635)
BALANCE, June 30, 2022	32,195	709	479,271	(967,659)	(55,532)	920,233	-	377,022
Comprehensive income:								
Net income	-	-	-	-	-	12,481	-	-
Unrealized gain on short-term investments, net of tax	-	-	-	-	3	-	-	-
Foreign currency translation adjustments	-	-	-	-	(17,919)	-	-	-
Total comprehensive loss	-	-	-	-	-	-	-	(5,435)
Repurchase of common stock	(495)	-	(435)	(27,947)	-	-	-	(28,382)
Issuance of common stock pursuant to employee stock purchase plan	16	-	794	-	-	-	-	794
Issuance of restricted common stock pursuant to stock-based compensation plans	13	-	-	-	-	-	-	-
Cancellation of restricted common stock issued pursuant to stock-based compensation plans	(65)	(1)	1	-	-	-	-	-
Stock-based compensation expense	-	-	8,661	-	-	-	-	8,661
Dividends	-	-	-	-	-	(8,355)	-	(8,355)
BALANCE, September 30, 2022	<u>31,664</u>	<u>\$ 708</u>	<u>\$ 488,292</u>	<u>\$ (995,606)</u>	<u>\$ (73,448)</u>	<u>\$ 924,359</u>	<u>\$ -</u>	<u>\$ 344,305</u>

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

CSG SYSTEMS INTERNATIONAL, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS - UNAUDITED
(in thousands)

	Nine Months Ended	
	September 30, 2023	September 30, 2022
Cash flows from operating activities:		
Net income	\$ 53,576	\$ 23,911
Adjustments to reconcile net income to net cash provided by operating activities-		
Depreciation	17,549	21,817
Amortization	34,543	36,470
Asset impairment	1,689	30,126
Gain on lease modifications	(4,349)	-
Loss on short-term investments and other	-	19
Loss on derivative liability upon debt conversion	-	7,456
Unrealized foreign currency transactions gain, net	(442)	(1,700)
Deferred income taxes	(12,504)	(16,457)
Stock-based compensation	21,253	20,778
Changes in operating assets and liabilities, net of acquired amounts:		
Trade accounts receivable, net	(33,351)	(22,026)
Other current and non-current assets and liabilities	(11,449)	(16,430)
Income taxes payable/receivable	(4,650)	(7,188)
Trade accounts payable and accrued liabilities	(24,158)	(67,053)
Deferred revenue	14,658	(150)
Net cash provided by operating activities	<u>52,365</u>	<u>9,573</u>
Cash flows from investing activities:		
Purchases of software, property and equipment	(22,940)	(31,564)
Proceeds from sale/maturity of short-term investments	71	27,447
Net cash used in investing activities	<u>(22,869)</u>	<u>(4,117)</u>
Cash flows from financing activities:		
Proceeds from issuance of common stock	2,541	2,217
Payment of cash dividends	(26,231)	(25,396)
Repurchase of common stock	(116,418)	(73,380)
Deferred acquisition payments	(3,220)	(1,959)
Proceeds from long-term debt	470,000	290,000
Payments on long-term debt	(310,625)	(247,926)
Purchase of capped call transactions related to convertible notes	(34,298)	-
Payments of deferred financing costs	(13,518)	-
Settlement and merchant reserve activity	(46,196)	(13,931)
Net cash used in financing activities	<u>(77,965)</u>	<u>(70,375)</u>
Effect of exchange rate fluctuations on cash, cash equivalents, and restricted cash	<u>(448)</u>	<u>(7,689)</u>
Net decrease in cash, cash equivalents, and restricted cash	(48,917)	(72,608)
Cash, cash equivalents, and restricted cash, beginning of period	389,018	391,902
Cash, cash equivalents, and restricted cash, end of period	<u>\$ 340,101</u>	<u>\$ 319,294</u>
Supplemental disclosures of cash flow information:		
Cash paid during the period for-		
Interest	\$ 21,772	\$ 12,367
Income taxes	39,136	31,817
Reconciliation of cash, cash equivalents, and restricted cash:		
Cash and cash equivalents	\$ 146,730	\$ 146,685
Settlement and merchant reserve assets	193,371	172,609
Total cash, cash equivalents, and restricted cash	<u>\$ 340,101</u>	<u>\$ 319,294</u>

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

CSG SYSTEMS INTERNATIONAL, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

1. GENERAL

We have prepared the accompanying unaudited condensed consolidated financial statements as of September 30, 2023 and December 31, 2022, and for the quarters and nine months ended September 30, 2023 and 2022, in accordance with accounting principles generally accepted in the United States of America ("U.S.") ("GAAP") for interim financial information, and pursuant to the instructions to Form 10-Q and the rules and regulations of the Securities and Exchange Commission (the "SEC"). Accordingly, they do not include all of the information and footnotes required by GAAP for complete financial statements. In the opinion of our management, all adjustments (consisting only of normal recurring adjustments) considered necessary for a fair presentation of our financial position and operating results have been included. The unaudited Condensed Consolidated Financial Statements (the "Financial Statements") should be read in conjunction with the Consolidated Financial Statements and notes thereto, together with Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A"), contained in our Annual Report on Form 10-K for the year ended December 31, 2022 (our "2022 10-K"), filed with the SEC. The results of operations for the quarter and nine months ended September 30, 2023 are not necessarily indicative of the expected results for the entire year ending December 31, 2023.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Use of Estimates in Preparation of Financial Statements. The preparation of our Financial Statements requires management to make estimates and assumptions that may affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of our Financial Statements and the reported amounts of revenue and expenses during the reporting periods. Actual results could differ from those estimates.

Revenue. The majority of our future revenue is related to our revenue management solution customer contracts that include variable consideration dependent upon a series of monthly volumes and/or daily usage of services and have contractual terms ending from 2023 through 2036. Our customer contracts may include guaranteed minimums and fixed monthly or annual fees. As of September 30, 2023, our aggregate amount of the transaction price allocated to the remaining performance obligations is \$1.5 billion, which is made up of fixed fee consideration and guaranteed minimums expected to be recognized in the future related to performance obligations that are unsatisfied (or partially unsatisfied). We expect to recognize over 65% of this amount by the end of 2025, with the remaining amount recognized by the end of 2036. We have excluded variable consideration expected to be recognized in the future related to performance obligations that are unsatisfied from this amount.

The nature, amount, timing, and uncertainty of our revenue and how revenue and cash flows are affected by economic factors is most appropriately depicted by revenue type, geographic region, and customer vertical.

Revenue by type for the quarters and nine months ended September 30, 2023 and 2022 were as follows (in thousands):

	Quarter Ended		Nine Months Ended	
	September 30, 2023	September 30, 2022	September 30, 2023	September 30, 2022
SaaS and related solutions	\$ 250,777	\$ 238,614	\$ 764,253	\$ 704,303
Software and services	23,578	23,123	73,235	61,627
Maintenance	12,513	11,571	34,446	33,946
Total revenue	<u>\$ 286,868</u>	<u>\$ 273,308</u>	<u>\$ 871,934</u>	<u>\$ 799,876</u>

We use the location of the customer as the basis of attributing revenue to geographic regions. Revenue by geographic region for the quarters and nine months ended September 30, 2023 and 2022, as a percentage of our total revenue, were as follows:

	Quarter Ended		Nine Months Ended	
	September 30, 2023	September 30, 2022	September 30, 2023	September 30, 2022
Americas (principally the U.S.)	86 %	86 %	86 %	85 %
Europe, Middle East, and Africa	9 %	10 %	10 %	11 %
Asia Pacific	5 %	4 %	4 %	4 %
Total revenue	<u>100 %</u>	<u>100 %</u>	<u>100 %</u>	<u>100 %</u>

We generate our revenue primarily from the global communications markets; however, we serve an expanding group of customers in other industry markets including retail, healthcare, financial services, insurance, and government entities. Revenue by customer vertical for the quarters and nine months ended September 30, 2023 and 2022, as a percentage of our total revenue, were as follows:

	Quarter Ended		Nine Months Ended	
	September 30, 2023	September 30, 2022	September 30, 2023	September 30, 2022
Broadband/Cable/Satellite	53 %	55 %	53 %	55 %
Telecommunications	20 %	20 %	20 %	19 %
Other	27 %	25 %	27 %	26 %
Total revenue	100 %	100 %	100 %	100 %

Deferred revenue as of December 31, 2022 and 2021, recognized during the quarters ended September 30, 2023 and 2022 was \$7.8 million and \$7.6 million, respectively, and during the nine months ended September 30, 2023 and 2022 was \$39.3 million and \$47.9 million, respectively.

Cash and Cash Equivalents. We consider all highly liquid investments with original maturities of three months or less at the date of the purchase to be cash equivalents. As of September 30, 2023 and December 31, 2022, our cash equivalents consist primarily of institutional money market funds, commercial paper, and time deposits held at major banks. For the cash and cash equivalents denominated in foreign currencies and/or located outside the U.S., we do not anticipate any material amounts being unavailable for use in running our business, but may face limitations on moving cash out of certain foreign jurisdictions due to currency controls and potential negative economic consequences.

Restricted Cash. Restricted cash includes cash that is legally or contractually restricted, as well as our settlement and merchant reserve assets (discussed below). The nature of the restrictions on our settlement and merchant reserve assets consists of contractual restrictions with the merchants and restrictions arising from our policy and intention. It has historically been our policy to segregate settlement and merchant reserve assets from our operating cash balances and our intention is to continue to do so. As of September 30, 2023 and December 31, 2022, we had \$1.2 million and \$1.0 million, respectively, of restricted cash that serves to collateralize bank guarantees and outstanding letters of credit included in cash and cash equivalents in our unaudited Condensed Consolidated Balance Sheets ("Balance Sheets" or "Balance Sheet").

Short-term Investments. Our short-term investments as of September 30, 2023 and December 31, 2022 were zero and \$0.1 million, respectively. Primarily all short-term investments held by us have contractual maturities of less than two years from the time of acquisition. Our short-term investments as of December 31, 2022 consisted of fixed income securities. Proceeds from the sale/maturity of short-term investments for the nine months ended September 30, 2023 and 2022 were \$0.1 million and \$27.4 million, respectively.

Settlement and Merchant Reserve Assets and Liabilities. Settlement assets and settlement liabilities represent cash collected on behalf of merchants via payment processing services which is held for an established holding period until settlement with the customer. The holding period is generally one to four business days depending on the payment model and contractual terms with the customer. During the holding period, cash is subject to restriction and segregation based on the nature of our custodial relationship with the merchants. Should we fail to remit these funds to our merchants, the merchant's sole recourse for payment would be against us. These rights and obligations are set forth in the contracts between us and the merchants. Settlement assets are held with various major financial institutions and a corresponding liability is recorded for the amounts owed to the customer. At any given time, there may be differences between the cash held and the corresponding liability due to the timing of operating-related cash transfers.

Merchant reserve assets/liabilities represent deposits collected from merchants to mitigate our risk of loss due to nonperformance of settlement obligations initiated by those merchants using our payment processing services, or non-payment by customers for services rendered by us. We perform a credit risk evaluation on each customer based on multiple criteria, which provide the basis for the deposit amount required for each merchant. For the duration of our relationship with each merchant, we hold their reserve deposits with major financial institutions. We hold these funds in separate accounts and are fully offset by corresponding liabilities.

The following table summarizes our settlement and merchant reserve assets and liabilities as of the indicated periods (in thousands):

	September 30, 2023		December 31, 2022	
	Assets	Liabilities	Assets	Liabilities
Settlement assets/liabilities	\$ 178,367	\$ 176,633	\$ 219,368	\$ 218,525
Merchant reserve assets/liabilities	15,004	15,004	19,285	19,285
Total	\$ 193,371	\$ 191,637	\$ 238,653	\$ 237,810

Financial Instruments. Our financial instruments as of September 30, 2023 and December 31, 2022 include cash and cash equivalents, short-term investments, settlement and merchant reserve assets and liabilities, accounts receivable, accounts payable, and debt. Due to their short maturities, the carrying amounts of cash equivalents, settlement and merchant reserve assets and liabilities, accounts receivable, and accounts payable approximate their fair value.

Our short-term investments and certain of our cash equivalents are considered "available-for-sale" and are reported at fair value in our Balance Sheets, with unrealized gains and losses, net of the related income tax effect, excluded from earnings and reported in a separate component of stockholders' equity. Realized and unrealized gains and losses were not material in any period presented.

The following table represents the fair value hierarchy based upon three levels of inputs, of which Levels 1 and 2 are considered observable and Level 3 is unobservable, for our financial assets measured at fair value (in thousands):

	September 30, 2023			December 31, 2022		
	Level 1	Level 2	Total	Level 1	Level 2	Total
Cash equivalents:						
Money market funds	\$ 5,457	\$ -	\$ 5,457	\$ 5,318	\$ -	\$ 5,318
Short-term investments:						
Asset-backed securities	-	-	-	-	71	71
Total	\$ 5,457	\$ -	\$ 5,457	\$ 5,318	\$ 71	\$ 5,389

Valuation inputs used to measure the fair values of our money market funds were derived from quoted market prices. The fair values of all other financial instruments are based upon pricing provided by third-party pricing services. These prices were derived from observable market inputs.

We have chosen not to record our debt at fair value, with changes recognized in earnings each reporting period. The following table indicates the carrying value and estimated fair value of our debt as of the indicated periods (in thousands):

	September 30, 2023		December 31, 2022	
	Carrying Value	Fair Value	Carrying Value	Fair Value
2023 Convertible Notes (par value)	\$ 425,000	\$ 414,694	\$ -	\$ -
2021 Credit Agreement (carrying value including current maturities):				
Term Loan	135,000	135,000	140,625	140,625
Revolver	15,000	15,000	275,000	275,000

The fair value of our convertible notes was estimated based upon quoted market prices or recent sales activity, while the fair value of our credit agreement was estimated using a discounted cash flow methodology, both of which are considered Level 2 inputs.

3. GOODWILL AND INTANGIBLE ASSETS

Goodwill. The changes in the carrying amount of goodwill for the nine months ended September 30, 2023 were as follows (in thousands):

January 1, 2023, balance	\$ 304,036
Adjustments related to prior acquisitions	(20)
Impairment charge related to Keydok, LLC	(1,118)
Effects of changes in foreign currency exchange rates	98
September 30, 2023, balance	\$ 302,996

See Notes 5 and 6 for further discussion of management's decision to shut down Keydok, LLC ("Keydok") resulting in the impairment charge recorded above.

Other Intangible Assets. Our other intangible assets subject to ongoing amortization consist primarily of acquired customer contracts and software. As of September 30, 2023 and December 31, 2022, the carrying values of these assets were as follows (in thousands):

	September 30, 2023			December 31, 2022		
	Gross Carrying Amount	Accumulated Amortization	Net Amount	Gross Carrying Amount	Accumulated Amortization	Net Amount
Acquired customer contracts	\$ 165,422	\$ (127,490)	\$ 37,932	\$ 165,497	\$ (120,080)	\$ 45,417
Software	176,192	(159,451)	16,741	173,111	(150,337)	22,774
Total other intangible assets	\$ 341,614	\$ (286,941)	\$ 54,673	\$ 338,608	\$ (270,417)	\$ 68,191

The total amortization expense related to other intangible assets for the third quarters of 2023 and 2022 were \$6.4 million and \$6.9 million, respectively, and for the nine months ended September 30, 2023 and 2022 were \$19.5 million and \$21.8 million, respectively. Based on the September 30, 2023 net carrying value of our intangible assets, the estimated total amortization expense for each of the five succeeding fiscal years ending December 31 are: 2023 - \$25.7 million; 2024 - \$15.8 million; 2025 - \$11.3 million; 2026 - \$7.8 million; and 2027 - \$3.1 million.

Customer Contract Costs. As of September 30, 2023 and December 31, 2022, the carrying values of our customer contract cost assets, related to those contracts with a contractual term greater than one year, were as follows (in thousands):

	September 30, 2023			December 31, 2022		
	Gross Carrying Amount	Accumulated Amortization	Net Amount	Gross Carrying Amount	Accumulated Amortization	Net Amount
Customer contract costs	\$ 91,510	\$ (38,174)	\$ 53,336	\$ 85,336	\$ (30,601)	\$ 54,735

The total amortization expense related to customer contract costs for the third quarters of 2023 and 2022 were \$5.0 million and \$3.8 million, respectively, and for the nine months ended September 30, 2023 and 2022 were \$14.4 million and \$14.2 million, respectively.

4. DEBT

Our long-term debt, as of September 30, 2023 and December 31, 2022, was as follows (in thousands):

	September 30, 2023	December 31, 2022
2023 Convertible Notes:		
2023 Convertible Notes – senior unsecured convertible notes, due September 15, 2028, cash interest at 3.875%	\$ 425,000	\$ -
Less – deferred financing costs	(13,864)	-
2023 Convertible Notes, net of unamortized discounts	411,136	-
2021 Credit Agreement:		
2021 Term Loan, due September 2026, interest at adjusted SOFR plus applicable margin (combined rate of 7.115% at September 30, 2023)	135,000	140,625
Less – deferred financing costs	(2,638)	(2,656)
2021 Term Loan, net of unamortized discounts	132,362	137,969
\$450 million revolving loan facility, due September 2026, interest at adjusted SOFR plus applicable margin (combined rate of 7.115% at September 30, 2023)	15,000	275,000
Total debt, net of unamortized discounts	558,498	412,969
Current portion of long-term debt, net of unamortized discounts	(22,500)	(37,500)
Long-term debt, net of unamortized discounts	\$ 535,998	\$ 375,469

2023 Convertible Notes. In September 2023, we completed an offering of \$425.0 million of 3.875% senior convertible notes due September 15, 2028 (the "2023 Convertible Notes") to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended. The 2023 Convertible Notes are unsecured obligations and will pay 3.875% annual cash interest, payable semiannually in arrears on March 15 and September 15 of each year, beginning on March 15, 2024.

The 2023 Convertible Notes will be convertible at the option of the noteholders before June 15, 2028 upon the occurrence of certain events. On or after June 15, 2028 and until the close of business on the second scheduled trading day immediately preceding the maturity date, noteholders may convert all or any portion of their notes at any time regardless of these conditions. We are required to satisfy our conversion obligation as follows: (i) paying cash up to the aggregate principal amount of notes to be converted; and (ii) to the extent the value of our conversion obligation exceeds the par value, we will satisfy the remaining conversion obligation in our common stock, cash, or a combination thereof, at our election. As of September 30, 2023, none of the conditions to early convert have been met.

The 2023 Convertible Notes will be convertible at an initial conversion rate of 14.0753 shares of our common stock per \$1,000 principal amount of the 2023 Convertible Notes, which is equivalent to an initial conversion price of approximately \$71.05 per share of our common stock. The conversion rate and conversion price will be subject to adjustment upon the occurrence of certain events. Under the terms of the 2023 Convertible Notes, we will adjust the conversion rate for any quarterly dividends exceeding \$0.28 per share.

Holders may require us, subject to certain conditions, to repurchase all or a portion of their 2023 Convertible Notes for cash upon the occurrence of a fundamental change (as defined in the Indenture related to the 2023 Convertible Notes ("2023 Notes Indenture")). The repurchase price will be equal to the principal amount thereof plus accrued and unpaid interest to, but excluding, the repurchase date.

We may not redeem the 2023 Convertible Notes prior to September 21, 2026. On or after September 21, 2026, we may redeem for cash all or part of the 2023 Convertible Notes, subject to a partial redemption limitation that requires at least \$100.0 million of the principal amount of the 2023 Convertible Notes to remain outstanding if the last reported sales price of our common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which we provide notice of redemption. The redemption price will equal the principal amount of the 2023 Convertible Notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date. No sinking fund has been established for the 2023 Convertible Notes.

The 2023 Notes Indenture includes customary terms, including certain events of default after which the 2023 Convertible Notes may be due and payable immediately. The 2023 Notes Indenture contains customary affirmative covenants, including a reporting covenant.

In September 2023, in connection with the pricing of the 2023 Convertible Notes, we entered into privately negotiated capped call transactions (the "Capped Call Transactions") with certain of the initial purchasers of the 2023 Convertible Notes and other financial institutions (collectively, the "Option Counterparties"). We used \$34.3 million of the net proceeds from the offering of the 2023 Convertible Notes to pay the premiums of the Capped Call Transactions.

The Capped Call Transactions cover, subject to anti-dilution adjustments substantially similar to those applicable to the 2023 Convertible Notes, 5.98 million shares of our common stock, the same number of shares of common stock underlying the 2023 Convertible Notes. The Capped Call Transactions will expire upon the maturity of the 2023 Convertible Notes.⁴⁵

The Capped Call Transactions are expected generally to reduce the potential dilution to the common stock upon conversion of the 2023 Convertible Notes and/or offset any cash payments we are required to make in excess of the principal amount of the 2023 Convertible Notes, in the event that the market price per share of common stock (as measured under the terms of the Capped Call Transactions) is greater than the strike price of the Capped Call Transactions. The strike price of the Capped Call Transactions initially corresponds to the initial conversion price of the 2023 Convertible Notes, or approximately \$71.05 per share of our common stock. The Capped Call Transactions have an initial cap price of approximately \$96.52 per share of our common stock, which represents a premium of 80% over the last reported sale price of our common stock on the date the 2023 Convertible Notes were issued, subject to certain adjustments under the terms of the Capped Call Transactions.

The Capped Call Transactions are separate transactions, entered into by us with the Option Counterparties. They are not part of the terms of the 2023 Convertible Notes and do not change the holders' rights under the 2023 Convertible Notes. Holders of the 2023 Convertible Notes do not have any rights with respect to the Capped Call Transactions. The Capped Call Transactions do not meet the criteria for separate accounting as a derivative as they meet the criteria for equity classification. The premiums paid for the Capped Call Transactions of \$34.3 million have been included as a reduction to additional paid-in capital, net of \$7.9 million of deferred income taxes.

The proceeds from the sale of the 2023 Convertible Notes, net of financing costs, were \$411.0 million. We used the net proceeds to: (i) repay the principal amount of \$275.0 million of outstanding borrowings under our \$450.0 million, five-year revolving loan facility (the "2021 Revolver"); (ii) repurchase 1.7 million shares of our common stock for \$90.1 million in privately negotiated transactions, concurrently with the pricing of the offering of the 2023 Convertible Notes; and (iii) pay the \$34.3 million premium for the Capped Call Transactions. The remaining net proceeds were used for general corporate purposes.

In conjunction with the closing of the 2023 Convertible Notes, we incurred financing costs of \$14.0 million which are being amortized to interest expense using the effective interest method through maturity.

2021 Credit Agreement. During the nine months ended September 30, 2023, we made \$5.6 million of principal repayments on our \$150.0 million aggregate principal five-year term loan (the "2021 Term Loan"). In conjunction with the issuance of the 2023 Convertible Notes, we repaid \$275.0 million on our 2021 Revolver. As of September 30, 2023, we had \$15.0 million outstanding on our 2021 Revolver, leaving \$435.0 million available to us.

As of September 30, 2023, the interest rate on our 2021 Term Loan and our 2021 Revolver was 7.115% (adjusted SOFR, credit spread adjustment of 0.10%, plus 1.625% per annum), effective through December 2023, and our commitment fee on the unused 2021 Revolver was 0.20%.

The interest rates under the 2021 Credit Agreement are based upon our choice of an adjusted SOFR rate plus an applicable margin of 1.375% - 2.125%, or an alternate base rate ("ABR") plus an applicable margin of 0.375% - 1.125%, with the applicable margin, being determined in accordance with our then-net secured total leverage ratio. We pay a commitment fee of 0.150% - 0.325% of the average daily unused amount of the 2021 Revolver, with the commitment fee rate being determined in accordance with our then-net secured total leverage ratio.

In April 2023, we entered into the First Amendment to the 2021 Credit Agreement (the "First Amendment"). The First Amendment replaced the interest rate benchmark, from LIBOR to the Secured Overnight Financing Rate ("SOFR"), and all references to "Eurodollar Borrowing(s)" or "Eurodollar Loans" were replaced with "Term SOFR Borrowing(s)" or "Term

SOFR Loans". Any loan amounts outstanding at the effective date of the First Amendment continued to bear interest at the applicable LIBOR rate until the end of the interest election period applicable to such loan. All Term SOFR Loans are subject to a 0.10% credit spread adjustment.

In September 2023, we entered into the Second Amendment to the 2021 Credit Agreement (the "Second Amendment"). The Second Amendment permits the issuance and sale of the 2023 Convertible Notes and the related Capped Call Transactions (described above). In conjunction with the Second Amendment, we incurred financing costs of \$0.5 million.

5. ACQUISITIONS

Keydok, LLC. On September 14, 2021, we acquired Keydok, a digital identity and document management platform provider, headquartered in Mexico. In March 2023, we decided to dissolve the Keydok business. See Note 6 for additional discussion.

DGIT Systems Pty Ltd. On October 4, 2021, we acquired DGIT Systems Pty Ltd ("DGIT"), a provider of configure, price and quote (CPQ) and order management solutions for the telecommunications industry. We acquired 100% of the equity of DGIT for a purchase price of approximately \$16 million, approximately \$14 million paid upon close and the remaining escrowed funds of approximately \$2 million to be paid through the first quarter of 2025, subject to certain reductions, as applicable. As of September 30, 2023, \$1.2 million of the escrowed funds had been paid.

The DGIT acquisition includes provisions for up to approximately \$13 million of potential future earn-out payments. The earn-out payments are tied to performance-based goals and a defined service period by the eligible recipients and are accounted for as post-acquisition compensation, as applicable. The earn-out period is through September 30, 2025. During 2022, \$0.3 million of the earn-out had been achieved and was paid out in March 2023.

6. RESTRUCTURING AND REORGANIZATION CHARGES

During the third quarters of 2023 and 2022, we recorded restructuring and reorganization charges of \$1.2 million and \$14.2 million, respectively, and for the nine months ended September 30, 2023 and 2022, we recorded restructuring and reorganization charges of \$8.4 million and \$46.3 million, respectively.

During the nine months ended September 30, 2023 we implemented the following restructuring and reorganizational activities:

- In March 2023, we decided to dissolve the Keydok business, which we had acquired in September of 2021. As a result, we recorded net impairment charges of \$1.2 million, to include the write-off of the acquired goodwill. We also subsequently terminated approximately 30 Mexico-based employees, which resulted in restructuring charges related to involuntary terminations of \$1.6 million.
- We reduced our workforce by approximately 82 employees, mainly in the U.S., as a result of organizational changes and efficiencies. As a result, we incurred restructuring charges related to involuntary terminations of \$2.2 million.
- We modified three of our real estate leases, at previously closed locations in India and the United States, resulting in earlier termination dates and the recognition of a \$4.3 million gain. We also recorded \$0.5 million of additional operating lease right-of-use asset impairments.
- During the second quarter of 2023 we exited a reseller agreement that was acquired with the acquisition of Forte Payment Systems, Inc. in 2018. As a result, we incurred expense of \$3.6 million, of which \$1.8 million has been paid and \$1.8 million was accrued as of September 30, 2023.

The activity in the restructuring and reorganization reserves during the nine months ended September 30, 2023 was as follows (in thousands):

	Termination Benefits	Other	Total
January 1, 2023, balance	\$ 2,491	\$ -	\$ 2,491
Charged to expense during period	3,801	4,620	8,421
Cash payments	(6,570)	(4,407)	(10,977)
Adjustment for asset impairment	-	(1,675)	(1,675)
Adjustment for gain on lease modifications	-	4,349	4,349
Adjustment for accelerated depreciation	-	(394)	(394)
Other	688	-	688
September 30, 2023, balance	\$ 410	\$ 2,493	\$ 2,903

As of September 30, 2023, \$2.9 million of the restructuring and reorganization reserves were included in current liabilities.

7. COMMITMENTS, GUARANTEES AND CONTINGENCIES

Guarantees. In the ordinary course of business, we may provide guarantees in the form of bid bonds, performance bonds, or standby letters of credit. As of September 30, 2023, we had \$1.9 million of restricted assets used to collateralize these guarantees, with \$1.2 million included in cash and cash equivalents and \$0.7 million included in other non-current assets.

We have performance guarantees in the form of surety bonds and money transmitter bonds, both issued through a third-party that are not required to be on our Balance Sheet. As of September 30, 2023, we had performance guarantees of \$4.3 million. We are ultimately liable for claims that may occur against these guarantees. We have no history of material claims or are aware of circumstances that would require us to pay under any of these arrangements. We also believe that the resolution of any claim that may arise in the future, either individually or in the aggregate, would not be material to our Financial Statements. As of September 30, 2023, we had total aggregate money transmitter bonds of \$19.9 million outstanding. These money transmitter bonds are for the benefit of various states to comply with the states' financial requirements and industry regulations for money transmitter licenses.

Warranties. We generally warrant that our solutions and related offerings will conform to published specifications, or to specifications provided in an individual customer arrangement, as applicable. The typical warranty period is 90 days from the date of acceptance of the solution or offering. For certain service offerings we provide a warranty for the duration of the services provided. We generally warrant that those services will be performed in a professional and skillful manner. The typical remedy for breach of warranty is to correct or replace any defective deliverable, and if not possible or practical, we will accept the return of the defective deliverable and refund the amount paid under the customer arrangement that is allocable to the defective deliverable. Our contracts also generally contain limitation of damages provisions in an effort to reduce our exposure to monetary damages arising from breach of warranty claims. Historically, we have incurred minimal warranty costs, and as a result, do not maintain a warranty reserve.

Solution and Services Indemnifications. Arrangements with our customers generally include an indemnification provision that will indemnify and defend a customer in actions brought against the customer that claim our products and/or services infringe upon a copyright, trade secret, or valid patent. Historically, we have not incurred any significant costs related to such indemnification claims, and as a result, do not maintain a reserve for such exposure.

Claims for Company Non-performance. Our arrangements with our customers typically limit our liability for breach to a specified amount of the direct damages incurred by the customer resulting from the breach. From time-to-time, these arrangements may also include provisions for possible liquidated damages or other financial remedies for our non-performance, or in the case of certain of our solutions, provisions for damages related to service level performance requirements. The service level performance requirements typically relate to platform availability and timeliness of service delivery. As of September 30, 2023, we believe we have adequate reserves, based on our historical experience, to cover any reasonably anticipated exposure as a result of our nonperformance for any past or current arrangements with our customers.

Indemnifications Related to Officers and the Board of Directors. Other guarantees include promises to indemnify, defend, and hold harmless our directors, and certain officers. Such indemnification covers any expenses and liabilities reasonably incurred by a person, by reason of the fact that such person is, was, or has agreed to be a director or officer, in connection with the investigation, defense, and settlement of any threatened, pending, or contemplated action, suit, proceeding, or claim. We maintain directors' and officers' ("D&O") insurance coverage to protect against such losses. We have not historically incurred any losses related to these types of indemnifications and are not aware of any pending or threatened actions or claims against any officer or member of our Board of Directors (the "Board"). As a result, we have not recorded any liabilities related to such indemnifications as of September 30, 2023. In addition, as a result of the insurance policy coverage, we believe these indemnification agreements are not significant to our results of operations.

Legal Proceedings. From time to time, we are involved in litigation relating to claims arising out of our operations in the normal course of business.

8. EARNINGS PER COMMON SHARE

Basic and diluted earnings per common share ("EPS") amounts are presented on the face of our unaudited Condensed Consolidated Statements of Income (the "Income Statements").

The reconciliation of the basic and diluted EPS denominators related to common shares is included in the following table (in thousands):

	Quarter Ended		Nine Months Ended	
	September 30, 2023	September 30, 2022	September 30, 2023	September 30, 2022
Basic weighted-average common shares	30,097	30,941	30,381	31,219
Dilutive effect of restricted common stock	187	218	159	268
Diluted weighted-average common shares	30,284	31,159	30,540	31,487

The dilutive effect of restricted common stock is computed using the treasury stock method. The dilutive effect of the 2023 Convertible Notes is computed using the if-converted method and will only have an effect in those quarterly periods in which our average stock price exceeds the current effective conversion price.

Potentially dilutive common shares related to non-participating unvested restricted stock and stock warrants were excluded from the computation of diluted EPS, as the effect was anti-dilutive, and were not material in any period presented. Stock warrants (see Note 9) will only have a dilutive effect upon vesting in those periods in which our average stock price exceeds the exercise price of \$26.68 per warrant.

9. STOCKHOLDERS' EQUITY AND EQUITY COMPENSATION PLANS

Stock Repurchase Program. We currently have a stock repurchase program, approved by our Board, authorizing us to repurchase shares of our common stock from time-to-time as market and business conditions warrant (the "Stock Repurchase Program"). During the third quarter and nine months ended September 30, 2023, we repurchased approximately 1,991,000 shares of our common stock for \$107.0 million (weighted-average price of \$53.73 per share). During the third quarter of 2022 we repurchased approximately 488,000 shares of our common stock for \$27.9 million (weighted-average price of \$57.27 per share), and during the nine months ended September 30, 2022 we repurchased approximately 1,114,000 shares of our common stock for \$65.5 million (weighted-average price of \$58.80 per share), respectively.

The repurchases during third quarter of 2023 were executed as follows:

- In August 2023, we entered into an SEC Rule 10b5-1 Plan under which we repurchased approximately 275,000 shares of our common stock for \$15.0 million (weighted-average price of \$54.65 per share). This plan was terminated by us in early September 2023.
- In September 2023, and concurrent with the pricing of the offering of the 2023 Convertible Notes, we repurchased approximately 1,680,000 million shares of our common stock for \$90.1 million (weighted-average price of \$53.62 per share) in privately negotiated transactions effected through one of the initial purchasers of the offering or its affiliate, as our agent.
- In September 2023, we entered into a second SEC Rule 10b5-1 Plan under which we repurchased approximately 36,000 shares of our common stock for \$1.9 million (weighted-average price of \$52.13 per share). This plan will remain in effect, unless terminated by us or by the provisions of the plan, through the earlier of: (i) December 31, 2024; or (ii) when an aggregate purchase price of \$100.0 million of our common stock is repurchased under the plan.

As part of the 2022 Inflation Reduction Act, effective January 1, 2023, a one percent excise tax is imposed on net share repurchases during the year. As of September 30, 2023, we accrued \$0.9 million for the excise tax which is included as a cost of treasury stock, however this is not reflected in the share repurchase amounts above.

As of September 30, 2023, the total remaining number of shares available for repurchase pursuant to the prior authorization (as defined below) under the Stock Repurchase Program totaled 0.1 million shares. In August 2023, our Board authorized an additional \$100.0 million of repurchases under the Stock Repurchase Program in addition to, and after the repurchase of, the remaining 0.1 million shares under the prior authorization.

Stock Repurchases for Tax Withholdings. In addition to the above-mentioned stock repurchases, during the third quarters of 2023 and 2022, we repurchased and then cancelled approximately 3,000 shares of common stock for \$0.1 million and approximately 7,000 shares of common stock for \$0.4 million, respectively, and during the nine months ended September 30, 2023 and 2022 we repurchased and then cancelled approximately 171,000 shares of common stock for \$9.6 million and approximately 132,000 shares of common stock for \$8.4 million, respectively, in connection with minimum tax withholding requirements resulting from the vesting of restricted common stock under our stock incentive plans.

Stock Incentive Plan. In August 2023, we increased the number of shares of our common stock authorized and reserved for issuance under the Amended and Restated 2005 Stock Incentive Plan by 2.9 million shares to a total of 27.9 million shares. This increase was approved by our stockholders at our 2023 Annual Meeting.

Cash Dividends. During the third quarter of 2023, our Board approved a quarterly cash dividend of \$0.28 per share of common stock, totaling \$8.7 million. During the third quarter of 2022, our Board approved a quarterly cash dividend of \$0.265 per share of common stock, totaling \$8.4 million. Dividends declared for the nine months ended September 30, 2023 and 2022 totaled \$26.4 million and \$25.4 million, respectively.

Warrants. In 2014, in conjunction with the execution of an amendment to our agreement with Comcast Corporation ("Comcast"), we issued stock warrants (the "Warrant Agreement") for the right to purchase up to 2.9 million shares of our common stock (the "Stock Warrants") as an additional incentive for Comcast to convert customer accounts onto our solutions based on various milestones. The Stock Warrants have a ten-year term and an exercise price of \$26.68 per warrant.

As of September 30, 2023, 1.0 million Stock Warrants remain issued, none of which have vested. The remaining unvested Stock Warrants will be accounted for as a customer contract cost asset once the performance conditions necessary for vesting are considered probable.

Stock-Based Awards. A summary of our unvested restricted common stock activity during the quarter and nine months ended September 30, 2023 is as follows (shares in thousands):

	Quarter Ended September 30, 2023		Nine Months Ended September 30, 2023	
	Shares	Weighted-Average Grant Date Fair Value	Shares	Weighted-Average Grant Date Fair Value
Unvested awards, beginning	1,334	\$ 53.44	1,147	\$ 53.34
Awards granted	13	53.29	701	51.69
Awards forfeited/cancelled	(69)	53.07	(99)	53.30
Awards vested	(9)	53.17	(480)	50.30
Unvested awards, ending	1,269	\$ 53.46	1,269	\$ 53.46

Included in the awards granted during the nine months ended September 30, 2023 are awards issued to members of executive management and certain key employees in the form of: (i) performance-based awards of approximately 134,000 restricted common stock shares, which vest in the first quarter of 2025 upon meeting certain pre-established financial performance objectives over a two-year performance period; and (ii) market-based awards of approximately 45,000 restricted common stock shares, which vest in the first quarter of 2026 upon meeting a relative total shareholder return performance achievement tier. Certain of these awards become fully vested upon a change in control, as defined, and the subsequent involuntary termination of employment.

The other restricted common stock shares granted during the nine months ended September 30, 2023 are primarily time-based awards, which vest annually over two to three years with no restrictions other than the passage of time. Certain shares of the restricted common stock become fully vested upon a change in control, as defined, involuntary terminations of employment, or death.

We recorded stock-based compensation expense for the third quarters of 2023 and 2022 of \$7.2 million and \$8.7 million, respectively, and for the nine months ended September 30, 2023 and 2022 of \$21.3 million and \$20.8 million, respectively.

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

The information contained in this MD&A should be read in conjunction with the Financial Statements and Notes thereto included in this Form 10-Q and the audited consolidated financial statements and notes thereto in our 2022 10-K.

Forward-Looking Statements

This report contains a number of forward-looking statements relative to our future plans and our expectations concerning our business and the industries we serve. These forward-looking statements are based on assumptions about a number of important factors and involve risks and uncertainties that could cause actual results to differ materially from estimates contained in the forward-looking statements. Some of the risks that are foreseen by management are outlined within Part I, Item 1A. Risk Factors of our 2022 10-K. Readers are strongly encouraged to review that section closely in conjunction with MD&A.

Company Overview

We are a purpose-driven SaaS platform company that enables large enterprise customers in a wide variety of industry verticals to tackle the ever-growing complexity of business in the digital age. Our industry leading revenue management and digital monetization, customer experience, and payments solutions make ordinary customer experiences extraordinary. Our cloud-first architecture and customer-centric approach help companies around the world acquire, monetize, engage, and retain the B2B (business-to-business), B2C (business-to-consumer), and B2B2X (business-to-business-to-consumer) customers. As brands reimagine their engagement strategies in an increasingly connected world, we sit at the center of a complex, multi-sided business model ensuring monetization and customer engagement is handled at all levels of the ecosystem.

We leverage 40 years of experience to deliver innovative customer engagement solutions for every stage of the customer lifecycle so our customers can deliver an outstanding customer experience that adapts to their customers' rapidly changing demands. Our diverse, worldwide workforce draws from real-world knowledge and extensive expertise to design and implement business solutions that make our customers' hardest decisions simpler so that they can focus on delivering differentiated and real-time experiences to their customers. As a global technology leader, we aspire to envision, invent, and shape a better, more future-ready world.

We focus our research and development ("R&D") and acquisition investments on expanding our offerings in a timely and efficient manner to address the complex, transformative needs of our customers. Our scalable, modular, and flexible solutions combined with our domain expertise and our ability to effectively migrate customers to our solutions, provide the industry with proven solutions to improve their profitability and consumers' experiences. We have specifically architected our solutions to offer a phased, incremental approach to transforming our customers' businesses, thereby reducing the business interruption risk associated with this evolution.

As discussed in Note 2 to our Financial Statements, we generate a majority of our revenue from the global communications markets; however, we serve an expanding group of customers in other markets including retail, healthcare, financial services, insurance, and government entities.

We are a member of the S&P Small Cap 600 and Russell 2000 indices.

Management Overview of Quarterly Results

Third Quarter Highlights. A summary of our results of operations for the third quarter of 2023, when compared to the third quarter of 2022, is as follows (in thousands, except per share amounts and percentages):

	Quarter Ended	
	September 30, 2023	September 30, 2022
Revenue	\$ 286,868	\$ 273,308
Transaction fees (1)	20,314	18,177
Operating Results:		
Operating income	\$ 32,731	\$ 19,977
Operating margin percentage	11.4 %	7.3 %
Diluted EPS	\$ 0.62	\$ 0.40
Supplemental Data:		
Restructuring and reorganization charges (2)	\$ 1,152	\$ 14,193
Executive transition costs	1,148	27
Acquisition-related costs:		
Amortization of acquired intangible assets	2,996	3,405
Transaction-related costs	(40)	495
Stock-based compensation (2)	7,216	8,650

- (1) Transaction fees are primarily comprised of fees paid to third-party payment processors and financial institutions and interchange fees under our payment services contracts. Transaction fees are included in revenue in our Income Statement (and not netted against revenue) because we maintain control and act as the principal over the integrated service provided under our payment services customer contracts.
- (2) Restructuring and reorganization charges include stock-based compensation, which is not included in the stock-based compensation line in the table above, and depreciation, which has not been recorded to the depreciation line on our Income Statement.

Revenue. Revenue for the third quarter of 2023 was \$286.9 million, a 5.0% increase when compared to revenue of \$273.3 million for the third quarter of 2022. The increase can be mainly attributed to the continued growth of our revenue management solutions.

Operating Results. Operating income for the third quarter of 2023 was \$32.7 million, or an 11.4% operating margin percentage, compared to \$20.0 million, or a 7.3% operating margin percentage for the third quarter of 2022. The increase in operating income can be mainly attributed to the \$13.0 million decrease in restructuring and reorganization charges between years.

Diluted EPS. Diluted EPS for the third quarter of 2023 was \$0.62 compared to \$0.40 for the third quarter of 2022, with the increase mainly attributed to the higher operating income in the third quarter of 2023, discussed above.

Cash and Cash Flows. As of September 30, 2023, we had cash, cash equivalents, and short-term investments of \$146.7 million, as compared to \$146.2 million as of June 30, 2023, and \$150.4 million as of December 31, 2022. Our cash flows provided by operating activities for the third quarter of 2023 were \$24.6 million. See the Liquidity section below for further discussion of our cash flows.

Significant Customer Relationships

Customer Concentration. A large percentage of our historical revenue has been generated from our two largest customers, which are Charter Communications Inc. ("Charter") and Comcast.

Revenue from these customers for the indicated periods was as follows (in thousands, except percentages):

	Quarter Ended					
	September 30, 2023		June 30, 2023		September 30, 2022	
	Amount	% of Revenue	Amount	% of Revenue	Amount	% of Revenue
Charter	\$ 59,432	21 %	\$ 60,175	21 %	\$ 57,974	21 %
Comcast	53,653	19 %	53,757	19 %	53,533	20 %

During the first quarter of 2023 we completed the consolidation of Charter's residential and small and medium business internet, video, and landline voice customers that began in late 2021.

The percentages of net billed accounts receivable balances attributable to our largest customers as of the indicated dates were as follows:

	As of			
	September 30, 2023	June 30, 2023	December 31, 2022	
Charter	21 %	23 %	22 %	
Comcast	17 %	18 %	17 %	

Charter. In April 2023, we entered into an Amended and Restated CSG Master Subscriber Management System Agreement (the "Agreement") with Charter. The primary purpose of the Agreement was to consolidate the previous agreement and amendments with Charter into one document. The Agreement formalized the extension of the term through March 31, 2028, from December 31, 2027, as was contemplated in the previous agreement, in connection with the final conversion of Charter's customer accounts, discussed above. The Agreement continues to provide that the term will automatically be extended for an additional one-year term, subject to Charter achieving certain conditional processing minimums on July 1, 2027, unless Charter provides us with written notice of non-renewal. All other material terms, provisions, and conditions of the previous agreement remain unchanged.

A copy of the Agreement, with confidential information redacted, is included as Exhibit 10.25 in our periodic filings with the SEC.

Comcast. On June 29, 2023, Comcast exercised their option to extend the term of their processing and other related solutions agreement through December 31, 2025, which aligns with the term of their print and mail services agreement. Terms of the processing agreement extension remain consistent with the financial terms and obligations under the original agreement.

A copy of the Comcast agreement and related amendments, with confidential information redacted, is included in the exhibits to our periodic filings with the SEC.

Risk of Customer Concentration. We expect to continue to generate a significant percentage of our future revenue from our largest customers. There are inherent risks whenever a large percentage of total revenue is concentrated with a limited number of customers. Should a significant customer: (i) terminate or fail to renew their contracts with us, in whole or in part, for any reason; (ii) significantly reduce the number of customer accounts processed on our solutions, the price paid for our services, or the scope of services that we provide; or (iii) experience significant financial or operating difficulties, it could have a material adverse effect on our financial condition and results of operations.

Critical Accounting Policies

The preparation of our Financial Statements in conformity with U.S. GAAP requires us to select appropriate accounting policies, and to make judgments and estimates affecting the application of those accounting policies. In applying our accounting policies, different business conditions or the use of different assumptions may result in materially different amounts reported in our Financial Statements.

We have identified the most critical accounting policies that affect our financial position and the results of our operations. Those critical accounting policies were determined by considering the accounting policies that involve the most complex or subjective decisions or assessments. The most critical accounting policies identified relate to the following items: (i) revenue recognition; (ii) impairment assessments of long-lived assets; (iii) income taxes; and (iv) loss contingencies. These critical accounting policies, as well as our other significant accounting policies, are discussed in our 2022 10-K.

Results of Operations

Revenue. Total revenue for the: (i) third quarter of 2023 was \$286.9 million, a 5.0% increase when compared to \$273.3 million for the third quarter of 2022; and (ii) nine months ended September 30, 2023 was \$871.9 million, a 9.0% increase when compared to \$799.9 million for the nine months ended September 30, 2022. These increases in revenue are primarily attributed to the continued growth of our revenue management solutions as we generated continued year-over-year growth in our SaaS and related solutions revenue driven mainly by conversion of customer accounts onto our solutions, increased usage of our other ancillary services, and higher payment volumes. Additionally, the first quarter of 2023 saw strong software and services revenue due to the timing of the closure of software license upgrades and from our communication design and delivery centers. In the first quarter of 2023, we also completed the final conversions of Charter's customer accounts onto our platforms, converting over nine million customer accounts since June 2022 and more than fourteen million in total.

We use the location of the customer as the basis of attributing revenue to individual countries. Revenue by geographic regions for the third quarters and nine months ended September 30, 2023 and 2022 was as follows (in thousands):

	Quarter Ended		Nine Months Ended	
	September 30, 2023	September 30, 2022	September 30, 2023	September 30, 2022
Americas (principally the U.S.)	\$ 246,880	\$ 233,733	\$ 746,299	\$ 679,002
Europe, Middle East, and Africa	25,502	28,336	88,795	88,878
Asia Pacific	14,486	11,239	36,840	31,996
Total revenue	<u>\$ 286,868</u>	<u>\$ 273,308</u>	<u>\$ 871,934</u>	<u>\$ 799,876</u>

Total Operating Expenses. Total operating expenses for the: (i) third quarter of 2023 were \$254.1 million, a 0.3% increase when compared to \$253.3 million for the third quarter of 2022; and (ii) nine months ended September 30, 2023 were \$772.8 million, a 2.2% increase when compared to \$756.2 million for the nine months ended September 30, 2022. The increases in total operating expenses are reflective of the higher revenue between periods, to include increased employee-related costs, partially offset by the decreases in restructuring and reorganization charges, discussed below.

The components of total operating expenses are discussed in more detail below.

Cost of Revenue (Exclusive of Depreciation). The cost of revenue for the: (i) third quarter of 2023 was \$152.7 million, a 10.3% increase when compared to \$138.5 million for the third quarter of 2022; and (ii) nine months ended September 30, 2023 was \$458.9 million, a 10.6% increase when compared to \$415.0 million for the nine months ended September 30, 2022. The increase in cost of revenue between periods is reflective of the increase in revenue year-over-year, to include increased employee-related costs. Total cost of revenue as a percentage of revenue for the: (i) third quarters of 2023 and 2022 was 53.2% and 50.7%, respectively; and (ii) nine months ended September 30, 2023 and 2022 was 52.6% and 51.9%, respectively.

R&D Expense (Exclusive of Depreciation). R&D expense for the: (i) third quarter of 2023 was \$35.3 million, a 1.3% decrease when compared to \$35.8 million for the third quarter of 2022; and (ii) nine months ended September 30, 2023 was \$107.4 million, a 3.9% increase when compared to \$103.4 million for the nine months ended September 30, 2022. The year-to-date increase in R&D expense is mainly attributed to higher employee-related costs. As a percentage of total revenue, R&D expense for the: (i) third quarters of 2023 and 2022 was 12.3% and 13.1%, respectively; and (ii) nine months ended September 30, 2023 and 2022 was 12.3% and 12.9%, respectively.

Our R&D efforts are focused on the evolution of our solutions that enable our customers to launch, monetize, and scale new digital services quickly and across any channel, while delivering an exceptional customer experience.

Selling, General, and Administrative ("SG&A") Expense (Exclusive of Depreciation). SG&A expense for the: (i) third quarter of 2023 was \$59.1 million, relatively consistent when compared to \$59.0 million for the third quarter of 2022; and (ii) nine months ended September 30, 2023 was \$180.9 million, a 4.1% increase when compared to \$173.8 million for the nine months ended September 30, 2022. The year-to-date increase in SG&A expense is primarily attributed to increases in employee-related costs, to include incentive compensation, offset to a certain degree by lower building related costs due to our office closures in 2022. Our SG&A costs as a percentage of total revenue for the: (i) third quarters of 2023 and 2022 were 20.6% and 21.6%, respectively; and (ii) nine months ended September 30, 2023 and 2022 were 20.8% and 21.7%, respectively.

Restructuring and Reorganization Charges. Restructuring and reorganization charges for the: (i) third quarter of 2023 were \$1.2 million, a \$13.0 million decrease when compared to \$14.2 million for the third quarter of 2022; and (ii) nine months ended September 30, 2023 were \$8.4 million, a \$37.9 million decrease when compared to \$46.3 million for the nine months ended September 30, 2022. The restructuring and reorganization charges for the third quarter and nine months ended September 30, 2023 relate mainly to the following:

- a reduction in workforce resulting in restructuring charges related to involuntary terminations of \$0.4 million and \$3.8 million, respectively;
- real estate restructuring charges to include impairment charges of zero and \$0.5 million, respectively, as we continue to rationalize our real estate footprint to reflect our flexible work approach, and three lease modifications at previously closed locations resulting in earlier termination dates, resulting in gains of \$0.5 million and \$4.3 million, respectively;
- exit of a reseller agreement that was acquired with the acquisition of Forte Payment Systems, Inc. in 2018 resulting in \$3.6 million of expense in the second quarter of 2023; and
- net impairment charges of \$1.2 million recorded in the first quarter of 2023 related to the dissolution of the Keydok business.

See Note 6 to our Financial Statements for additional discussion.

Operating Income. Operating income for the: (i) third quarter of 2023 was \$32.7 million, or 11.4% of total revenue, compared to \$20.0 million, or 7.3% of total revenue for the third quarter of 2022; and (ii) nine months ended September 30, 2023 was \$99.1 million, or 11.4% of total revenue, compared to \$43.7 million, or 5.5% of total revenue, for the nine months ended September 30, 2022. The increase in operating income can be mainly attributed to lower restructuring and reorganization charges, discussed above, with the year-to-date increase also attributed to higher revenue and improved profitability.

Interest Expense. Interest expense for the: (i) third quarter of 2023 was \$8.0 million, a \$3.7 million increase when compared to \$4.3 million for the third quarter of 2022; and (ii) nine months ended September 30, 2023 was \$23.1 million, a \$12.8 million increase when compared to \$10.3 million for the nine months ended September 30, 2022. Our interest expense relates primarily to our 2021 Credit Agreement. The increase in interest expense between periods can be attributed to rising interest rates and a higher average outstanding debt balance during 2023.

See Note 4 to our Financial Statements for additional discussion of our long-term debt.

Loss on Derivative Liability Upon Debt Conversion. In March 2022, we settled our 2016 Convertible Notes for approximately \$242 million in cash. As a result of the conversion of the 2016 Convertible Notes, we recognized a \$7.5 million loss on a derivative liability related to the change in our stock price over the observation period prior to settlement.

Other, net. Other, net for the: (i) third quarter of 2023 was \$0.8 million of other income, a \$2.0 million change when compared to \$2.8 million of other income for the third quarter of 2022; and (ii) nine months ended September 30, 2023 was \$3.0 million of other expense, a \$9.0 million change when compared to \$6.0 million of other income for the nine months ended September 30, 2022, with the changes primarily attributed to foreign currency movements.

Income Tax Provision. The effective income tax rates for the third quarters and nine months ended September 30, 2023 and 2022 were as follows:

Quarter Ended		Nine Months Ended	
September 30, 2023	September 30, 2022	September 30, 2023	September 30, 2022
30 %	33 %	29 %	26 %

Our estimated full year 2023 effective income tax rate is approximately 29%.

The effective income tax rate for the third quarter of 2022 was impacted by the timing of certain discrete tax items during the quarter. The full year 2022 effective income tax rate was 28%.

Liquidity

Cash and Liquidity. As of September 30, 2023, our principal sources of liquidity included cash, cash equivalents, and short-term investments of \$146.7 million, compared to \$146.2 million as of June 30, 2023, and \$150.4 million as of December 31, 2022. We generally invest our excess cash balances in low-risk, short-term investments to limit our exposure to market and credit risks.

As part of our 2021 Credit Agreement, we have a \$450.0 million senior secured revolving loan facility with a syndicate of financial institutions that expires in September 2026. As of September 30, 2023, we had \$15.0 million outstanding on the 2021 Revolver, leaving \$435.0 million available to us. The 2021 Credit Agreement contains customary affirmative, negative, and financial covenants. As of September 30, 2023, and the date of this filing, we believe that we are in compliance with the provisions of the 2021 Credit Agreement.

Our cash, cash equivalents, and short-term investment balances as of the end of the indicated periods were located in the following geographical regions (in thousands):

	September 30, 2023	December 31, 2022
Americas (principally the U.S.)	\$ 108,705	\$ 91,569
Europe, Middle East and Africa	24,950	49,099
Asia Pacific	13,075	9,768
Total cash, equivalents, and short-term investments	\$ 146,730	\$ 150,436

We generally have ready access to substantially all of our cash, cash equivalents, and short-term investment balances, but may face limitations on moving cash out of certain foreign jurisdictions due to currency controls and potential negative economic consequences.

As of September 30, 2023 and December 31, 2022, we had \$1.2 million and \$1.0 million, respectively, of cash restricted as to use primarily to collateralize guarantees and outstanding letters of credit included in our total cash, cash equivalents, and short-term investments balance. In addition, as of September 30, 2023 and December 31, 2022, we had \$193.4 million and \$238.7 million, respectively, of settlement and merchant reserve assets which are deemed restricted due to contractual restrictions with the merchants and restrictions arising from our policy and intention. It has historically been our policy to segregate settlement and merchant reserve assets from our operating cash balances and we intend to continue to do so.

Cash Flows from Operating Activities. We calculate our cash flows from operating activities beginning with net income, adding back the impact of non-cash items or non-operating activity (e.g., depreciation, amortization, impairments, gains/losses on items such as investments, lease modifications, and debt extinguishments/conversions, unrealized foreign currency gain/losses, deferred income taxes, stock-based compensation, etc.), and then factoring in the impact of changes in operating assets and liabilities. See our 2022 10-K for a description of the primary uses and sources of our cash flows from operating activities.

Our cash flows from operating activities, broken out between operations and changes in operating assets and liabilities, for the indicated quarterly periods are as follows (in thousands):

	Operations	Changes in Operating Assets and Liabilities	Net Cash Provided by (Used In) Operating Activities – Totals
Cash Flows from Operating Activities:			
2023:			
March 31 (1)	\$ 50,158	\$ (34,761)	\$ 15,397
June 30	26,539	(14,153)	12,386
September 30	34,618	(10,036)	24,582
Total	\$ 111,315	\$ (58,950)	\$ 52,365
2022:			
March 31 (1)	\$ 49,687	\$ (55,236)	\$ (5,549)
June 30 (2)	36,881	(44,597)	(7,716)
September 30	35,852	(13,014)	22,838
Total	\$ 122,420	\$ (112,847)	\$ 9,573

(1) Cash flows from operating activities for the first quarters of 2023 and 2022 reflect the impact of the payment of the 2022 and 2021 year-end accrued employee incentive compensation in the first quarter subsequent to the year-end accrual for these items.

(2) Cash flows from operating activities for the second quarter of 2022 were negatively impacted by unfavorable changes in working capital, which can be mainly attributed to timing.

Variations in our net cash provided by/(used in) operating activities are generally related to the changes in our operating assets and liabilities (related mostly to fluctuations in timing at quarter-end of customer payments and changes in accrued expenses), and generally over longer periods of time, do not significantly impact our cash flows from operations.

Significant fluctuations in key operating assets and liabilities between 2023 and 2022 that impacted our cash flows from operating activities are as follows:

Billed Trade Accounts Receivable

Management of our billed accounts receivable is one of the primary factors in maintaining strong cash flows from operating activities. Our billed trade accounts receivable balance includes significant billings for several non-revenue items (primarily postage, sales tax, and deferred revenue items). As a result, we evaluate our performance in collecting our accounts receivable through our calculation of days billings outstanding ("DBO") rather than a typical days sales outstanding ("DSO") calculation.

Our gross and net billed trade accounts receivable and related allowance for doubtful accounts receivable ("Allowance") as of the end of the indicated quarterly periods, and the related DBOs for the quarters then ended, are as follows (in thousands, except DBOs):

Quarter Ended	Gross	Allowance	Net Billed	DBOs
2023:				
March 31	\$ 261,028	\$ (5,254)	\$ 255,774	68
June 30	260,928	(4,618)	256,310	65
September 30	279,892	(4,731)	275,161	66
2022:				
March 31	\$ 243,292	\$ (4,924)	\$ 238,368	70
June 30	241,682	(5,105)	236,577	66
September 30	243,829	(4,998)	238,831	66

As of September 30, 2023 and 2022, approximately 93%, for both periods, of our net billed accounts receivable balance were less than 60 days past due.

We may experience adverse impacts to our DBOs if and when customer payment delays occur. However, these recurring monthly payments that cross a reporting period-end do not raise any collectability concerns, as payment is generally received subsequent to quarter-end. All other changes in our gross and net billed accounts receivable reflect the normal fluctuations in the timing of customer payments at quarter-end, as evidenced by our relatively consistent DBO metric.

As a global provider of solutions and services, a portion of our accounts receivable balance relates to international customers. This diversity in the geographic composition of our customer base may adversely impact our DBOs as longer billing cycles (i.e., billing terms and cash collection cycles) are an inherent characteristic of international transactions. For example, our ability to invoice and collect arrangement fees may be dependent upon, among other things: (i) the completion of various customer administrative matters, local country billing protocols and processes (including local cultural differences), and non-customer administrative matters; (ii) meeting certain contractual invoicing milestones; (iii) the overall project status in certain situations in which we act as a subcontractor to another vendor on a project; or (iv) due to currency controls in certain foreign jurisdictions.

Unbilled Trade Accounts Receivable

Unbilled trade accounts receivable increased \$30.8 million to \$83.6 million as of September 30, 2023, from \$52.8 million as of December 31, 2022, due primarily to large implementation projects where various milestone and contractual billing dates have not yet been reached or delayed. Unbilled accounts receivable are an inherent characteristic of certain software and services transactions and may fluctuate between quarters, as these types of transactions typically have scheduled invoicing terms over several quarters, as well as certain milestone billing events.

Cash Flows from Investing Activities. Our typical investing activities consist of purchases/sales of short-term investments and purchases of software, property and equipment, which are discussed below.

Purchases/Sales of Short-Term Investments

During the nine months ended September 30, 2023 and 2022, we sold (or had mature) \$0.1 million and \$27.4 million, respectively, of short-term investments. We continually evaluate the appropriate mix of our investment of excess cash balances between cash equivalents and short-term investments in order to maximize our investment returns and liquidity.

Purchases of Software, Property and Equipment

Our capital expenditures for the nine months ended September 30, 2023 and 2022 for software, property and equipment were \$22.9 million and \$31.6 million, respectively, and consisted principally of investments in: (i) communication design and delivery center equipment and infrastructure; (ii) software and related equipment; (iii) computer hardware; and (iv) leasehold improvements and related infrastructure for our new corporate headquarters.

Cash Flows from Financing Activities. Our financing activities typically consist of activities associated with our common stock, long-term debt, and settlement and merchant reserve activity, discussed below. Additionally, during the nine months ended September 30, 2023, we made the following deferred acquisition payments: (i) Kitewheel deferred purchase price payment of \$2.0 million; and (ii) DGIT earn-out and escrowed payments of \$1.2 million.

Cash Dividends Paid on Common Stock

During the nine months ended September 30, 2023 and 2022, the Board approved dividends totaling \$26.4 million and \$25.4 million, respectively, and we made dividend payments of \$26.2 million and \$25.4 million, respectively, with the differences between the amount approved and paid attributed to dividends on accrued unvested incentive shares that are paid upon vesting.

Repurchase of Common Stock

During the nine months ended September 30, 2023 and 2022, we repurchased approximately 1,991,000 and 1,114,000 shares of our common stock, respectively, under the guidelines of our Stock Repurchase Program for \$107.0 million and \$65.5 million, respectively.

Outside of our Stock Repurchase Program, during the nine months ended September 30, 2023 and 2022, we repurchased from our employees and then cancelled approximately 171,000 and 132,000 shares of our common stock, respectively, for \$9.6 million and \$8.4 million, respectively, in connection with minimum tax withholding requirements resulting from the vesting of restricted common stock under our stock incentive plans.

Through the nine months ended September 30, 2023 and 2022, we have paid \$116.4 million and \$73.4 million, respectively, for our total repurchases of common stock, with the differences when compared to the amounts purchased attributed to the timing of the settlement.

See Note 9 to our Financial Statements for additional discussion of our repurchases of common stock.

Long-term Debt

During the nine months ended September 30, 2023, we borrowed \$45.0 million under our 2021 Revolver for general corporate purposes and subsequently repaid \$30.0 million. In September 2023, we issued the 2023 Convertible Notes offering and received proceeds of \$425.0 million. We used a portion of these proceeds to repay \$275.0 million of our 2021 Revolver balance and pay the \$34.3 million premiums for the Capped Call Transactions.

Additionally, during the nine months ended September 30, 2023, we paid deferred financing costs of \$13.5 million, of which \$13.0 million related to the 2023 Convertible Notes and \$0.5 million related to the Second Amendment to the 2021 Credit Agreement.

During the nine months ended September 30, 2022, we borrowed \$290.0 million under our 2021 Revolver using \$242.3 million to settle our 2016 Convertible Notes, and the remainder for general corporate purposes.

Additionally, during the nine months ended September 30, 2023 and 2022, we made principal repayments on our 2021 Term Loan of \$5.6 million during each period.

See Note 4 to our Financial Statements for additional discussion of our long-term debt.

Settlement and Merchant Reserve Activity

During the nine months ended September 30, 2023 and 2022, we had net settlement and merchant reserve activity of (\$46.2) million and (\$13.9) million, respectively, related to the cash collected, held on behalf, and paid to our merchants related to our payment processing services and the net change in deposits held on behalf of our merchants. These balances can significantly fluctuate between periods due to activity at the end of the period and the day in which the period ends.

See Note 2 to our Financial Statements for additional discussion of our settlement and merchant reserves.

Off-Balance Sheet Arrangements

Our off-balance sheet arrangements are mainly limited to money transmitter bonds, bid bonds, and performance bonds. These arrangements do not have a material impact and are not reasonably likely to have a material future impact to our financial condition, results of operation, liquidity, capital expenditures, or capital resources. See Note 7 to our Financial Statements for additional information on these guarantees.

Capital Resources

The following are the key items to consider in assessing our sources and uses of capital resources:

Current Sources of Capital Resources. Below are the key items to consider in assessing our current sources of capital resources:

- Cash, Cash Equivalents, and Short-term Investments. As of September 30, 2023, we had cash, cash equivalents, and short-term investments of \$146.7 million, of which approximately 69% is in U.S. dollars and held in the U.S. Included in cash and cash equivalents is \$1.2 million of restricted cash. For the remainder of the monies denominated in foreign currencies and/or located outside the U.S., we do not anticipate any material amounts being unavailable for use in funding our business, but may face limitations on moving cash out of certain foreign jurisdictions due to currency controls and potential negative economic consequences.
- Operating Cash Flows. As described in the Liquidity section above, we believe we have the ability to generate strong cash flows to fund our operating activities and act as a source of funds for our capital resource needs, although we may experience quarterly variations in our cash flows from operations related to the changes in our operating assets and liabilities.
- Revolving Loan Facility. As part of our 2021 Credit Agreement, we have a \$450.0 million revolving loan facility, our 2021 Revolver. As of September 30, 2023, we had \$15.0 million outstanding on our 2021 Revolver, leaving \$435.0 million available to us. Our long-term debt obligations are discussed in more detail in Note 4 to our Financial Statements.

Uses/Potential Uses of Capital Resources. Below are the key items to consider in assessing our uses/potential uses of capital resources:

- Common Stock Repurchases. We have made repurchases of our common stock in the past under our Stock Repurchase Program. As of September 30, 2023, the total remaining number of shares available for repurchase pursuant to the prior authorization under the Stock Repurchase Program totaled 0.1 million shares. In August 2023, our Board authorized an additional \$100.0 million of repurchases under the Stock Repurchase Program in addition to, and after the repurchase of, the remaining 0.1 million shares under the prior authorization. Our 2021 Credit Agreement places certain limitations on our ability to repurchase our common stock.

Under our Stock Repurchase Program, we may repurchase shares in the open market or in privately negotiated transactions, including through an accelerated stock repurchase plan or under a SEC Rule 10b5-1 plan. The actual timing and amount of share repurchases are dependent on the current market conditions and other business-related factors. Our common stock repurchases are discussed in more detail in Note 9 to our Financial Statements.

During the nine months ended September 30, 2023, we repurchased approximately 1,991,000 shares of our common stock for \$107.0 million (weighted-average price of \$53.73 per share).

Outside of our Stock Repurchase Program, during the nine months ended September 30, 2023, we repurchased from our employees and then cancelled approximately 171,000 shares of our common stock for \$9.6 million in connection with minimum tax withholding requirements resulting from the vesting of restricted common stock under our stock incentive plans.

- Cash Dividends. During the nine months ended September 30, 2023, the Board declared dividends totaling \$26.4 million. Going forward, we expect to pay cash dividends each year in March, June, September, and December, with the amount and timing subject to the Board's approval.

- Acquisitions. As a result of our acquisition activity, we have the following potential future obligations:

- The 2021 Kitewheel, LLC purchase acquisition agreement includes deferred purchase price payments. During the third quarter of 2023, we paid \$2.0 million, with the remaining \$2.0 million to be paid on July 1, 2024.
- The 2021 DGIT acquisition purchase price includes escrowed funds of approximately \$2 million to be paid through the first quarter of 2025, subject to certain reductions, as applicable. Through September 30, 2023, we have made total escrowed payments of \$1.2 million.

Additionally, there are provisions for up to approximately \$13 million of potential future earn-out payments through September 30, 2025. Through September 30, 2023, we have made earn-out payments of \$0.3 million.

As part of our growth strategy, we are continually evaluating potential business and/or asset acquisitions and investments in market share expansion with our existing and potential new customers and expansion into verticals outside the global communications market.

- Exit of Reseller Agreements. During the nine months ended September 30, 2023, we exited out of a reseller agreement that was acquired with the acquisition of Forte Payment Systems, Inc. in 2018. As a result, we incurred expense of \$3.6 million, of which \$1.8 million was paid in the second quarter of 2023, with the remaining \$1.8 million to be paid in 2024.

Additionally, in October 2023, we exited out of a second reseller agreement, which we will pay a total of \$6.3 million, with \$3.8 million to be paid in 2024, \$1.3 million in 2025, and the remainder in 2026.

- Capital Expenditures. During the nine months ended September 30, 2023, we spent \$22.9 million on capital expenditures.

- Stock Warrants. In 2014, we issued stock warrants with an exercise price of \$26.68 per warrant to Comcast as an incentive for Comcast to convert new customer accounts onto our solutions. Once vested, Comcast may exercise the stock warrants and elect either physical delivery of common shares or net share settlement (cashless exercise). Alternatively, the exercise of the stock warrants may be settled with cash based solely on our approval, or if Comcast were to beneficially own or control in excess of 19.99% of the common stock or voting of the Company. As of September 30, 2023, 1.0 million stock warrants remain issued, none of which are vested.

The stock warrants are discussed in more detail in Note 9 to our Financial Statements.

- Long-Term Debt. As of September 30, 2023, our long-term debt consisted of our 2023 Convertible Notes in the principal aggregate amount of \$425.0 million and our 2021 Credit Agreement which includes: (i) outstanding 2021 Term Loan borrowings of \$135.0 million; and (ii) outstanding 2021 Revolver borrowings of \$15.0 million.

2023 Convertible Notes

The proceeds from the sale of the 2023 Convertible Notes, net of financing costs, were \$411.0 million. We used the net proceeds to: (i) repay the principal amount of \$275.0 million of outstanding borrowings under our 2021 Revolver; (ii) repurchase 1.7 million shares of our common stock for \$90.1 million; and (iii) pay the \$34.3 million premiums for the Capped Call Transactions. The remaining net proceeds were used for general corporate purposes.

Although the 2023 Convertible Notes are convertible at the option of the note holders before June 15, 2028 upon the occurrence of certain events, during the next twelve months there are no scheduled conversion triggers. As a result, we expect our required debt service cash outlay during the next twelve months for the 2023 Convertible Notes to be limited to interest payments of \$16.5 million.

2021 Credit Agreement

The mandatory repayments for the next twelve months under our 2021 Credit Agreement are \$7.5 million and the cash interest expense (based upon then-current interest rates) for the 2021 Term Loan and 2021 Revolver (assuming the current amount outstanding, no further amounts are borrowed, and the amount is not voluntarily repaid) are \$9.6 million and \$1.1 million, respectively. We have the ability to make prepayments without penalties on our 2021 Credit Agreement.

Our long-term debt obligations are discussed in more detail in Note 4 to our Financial Statements.

In summary, we expect to continue to have material needs for capital resources going forward, as noted above. We believe that our current cash and cash equivalents balances and our 2021 Revolver, together with cash expected to be generated in the future from our current operating activities, will be sufficient to meet our anticipated capital resource requirements for at least the next twelve months. We also believe we could obtain additional capital through other debt sources which may be available to us if deemed appropriate.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Market risk is the potential loss arising from adverse changes in market rates and prices. As of September 30, 2023, we are exposed to various market risks, including changes in interest rates, fluctuations and changes in the market value of our cash equivalents, short-term investments and settlement and merchant reserve assets, and changes in foreign currency exchange rates. We have not historically entered into derivatives or other financial instruments for trading or speculative purposes.

Interest Rate Risk

Long-Term Debt. The interest rate on our 2023 Convertible Notes is fixed, and thus, as it relates to our convertible debt borrowings, we are not exposed to changes in interest rates.

The current interest rates on our 2021 Credit Agreement are based upon an adjusted SOFR rate (including 0.10% credit spread adjustment) plus an applicable margin, or an ABR plus an applicable margin. See Note 4 to our Financial Statements for further details related to our long-term debt.

A hypothetical adverse change of 10% in the September 30, 2023 adjusted SOFR rate would not have a material impact upon our results of operations.

Market Risk

Cash Equivalents and Short-Term Investments. Our cash and cash equivalents as of September 30, 2023 and December 31, 2022 were \$146.7 million and \$150.4 million, respectively. Certain of our cash balances are swept into overnight money market accounts on a daily basis, and at times, any excess funds are invested in low-risk, somewhat longer term, cash equivalent instruments and short-term investments. Our cash equivalents are invested primarily in institutional money market funds held at major banks. We have minimal market risk for our cash and cash equivalents due to the relatively short maturities of the instruments.

Our short-term investments as of September 30, 2023 and December 31, 2022 were zero and \$0.1 million, respectively. Currently, we utilize short-term investments as a means to invest our excess cash only in the U.S. The day-to-day management of our short-term investments is performed by a large financial institution in the U.S., using strict and formal investment guidelines approved by our Board. Under these guidelines, short-term investments are limited to certain acceptable investments with a: (i) maximum maturity; (ii) maximum concentration and diversification; and (iii) minimum acceptable credit quality. At this time, we believe we have minimal liquidity risk associated with the short-term investments included in our portfolio.

Settlement and Merchant Reserve Assets. We are exposed to market risk associated with cash held on behalf of our merchants related to our payment processing services. As of September 30, 2023 and December 31, 2022, we had \$193.4 million and \$238.7 million, respectively, of cash collected on behalf of our merchants. The cash is held in accounts with various major financial institutions in the U.S. and Canada in an amount equal to at least 100% of the aggregate amount owed to our merchants. These balances can significantly fluctuate between periods due to activity at the end of the period and the day in which the period ends.

Long-Term Debt. The fair value of our convertible debt is exposed to market risk. We do not carry our convertible debt at fair value but present the fair value for disclosure purposes (see Note 2 to our Financial Statements). Generally, the fair value of our convertible debt is impacted by changes in interest rates and changes in the price and volatility of our common stock. As of September 30, 2023, the fair value of the 2023 Convertible Notes was estimated at \$414.7 million, using quoted market prices.

Foreign Currency Exchange Rate Risk

Due to foreign operations around the world, our balance sheet and income statement are exposed to foreign currency exchange risk due to the fluctuations in the value of currencies in which we conduct business. While we attempt to maximize natural hedges by incurring expenses in the same currency in which we contract revenue, the related expenses for that revenue could be in one or more differing currencies than the revenue stream.

During the nine months ended September 30, 2023, we generated approximately 88% of our revenue in U.S. dollars. We expect that, in the foreseeable future, we will continue to generate a very large percentage of our revenue in U.S. dollars.

As of September 30, 2023 and December 31, 2022, the carrying amounts of our monetary assets and monetary liabilities on the books of our non-U.S. subsidiaries in currencies denominated in a currency other than the functional currency of those non-U.S. subsidiaries are as follows (in thousands, in U.S. dollar equivalents):

	September 30, 2023		December 31, 2022	
	Monetary Liabilities	Monetary Assets	Monetary Liabilities	Monetary Assets
Pounds sterling	\$ (4)	\$ 1,243	\$ (119)	\$ 601
Euro	(68)	2,645	(425)	1,992
U.S. Dollar	(282)	31,742	(597)	31,646
Other	(4)	1,718	(72)	503
Totals	<u>\$ (358)</u>	<u>\$ 37,348</u>	<u>\$ (1,213)</u>	<u>\$ 34,742</u>

A hypothetical adverse change of 10% in the September 30, 2023 exchange rates would not have had a material impact upon our results of operations.

Item 4. Controls and Procedures

(a) Disclosure Controls and Procedures

As required by Rule 13a-15(b), our management, including the Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), conducted an evaluation as of the end of the period covered by this report of the effectiveness of our disclosure controls and procedures as defined in Rule 13a-15(e). Based on that evaluation, the CEO and CFO concluded that our disclosure controls and procedures were effective as of the end of the period covered by this report.

(b) Internal Control Over Financial Reporting

As required by Rule 13a-15(d), our management, including the CEO and CFO, also conducted an evaluation of our internal control over financial reporting, as defined by Rule 13a-15(f), to determine whether any changes occurred during the quarter covered by this report that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. Based on that evaluation, the CEO and CFO concluded that there has been no such change during the quarter covered by this report.

CSG SYSTEMS INTERNATIONAL, INC.
PART II. OTHER INFORMATION

Item 1. Legal Proceedings

From time to time, we are involved in litigation relating to claims arising out of our operations in the normal course of business. In the opinion of our management, we are not presently a party to any material pending or threatened legal proceedings.

Item 1A. Risk Factors

A discussion of our risk factors can be found in Item 1A. Risk Factors in our 2022 Form 10-K. There were no material changes to the risk factors disclosed in our 2022 Form 10-K during the third quarter of 2023.

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

The following table presents information with respect to purchases of our common stock made during the third quarter of 2023 by CSG Systems International, Inc. or any "affiliated purchaser" of CSG Systems International, Inc., as defined in Rule 10b-18(a)(3) under the Securities Exchange Act of 1934, as amended.

Period	Total Number of Shares Purchased (1) (2)	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (2)	Stock Repurchase Program	
				Maximum Number of Shares that May Yet Be Purchased Under the Program (2) (3)	Maximum Dollar Value of Shares that May Yet Be Purchased Under the Program (3) (4)
July 1 - July 31	810	\$ 51.92	-	2,107,047	
August 1 - August 31	260,552	54.63	259,852	1,847,195	\$ 100,000,000
September 1 - September 30	1,732,785	53.60	1,731,594	115,601	100,000,000
Total	1,994,147	\$ 53.73	1,991,446		

- (1) The total number of shares purchased that are not part of the Stock Repurchase Program includes shares purchased and cancelled in connection with stock incentive plans.
- (2) As of September 30, 2023, 115,601 shares remained available for repurchase with respect to our Board's prior authorization (the "prior authorization") under our Stock Repurchase Program. The prior authorization expires in December 2024.
- (3) See Note 9 to our Financial Statements for additional information regarding our share repurchases.
- (4) In August 2023, we announced that our Board had authorized the repurchase of an additional \$100.0 million of common stock (the "new repurchase authorization") under our Stock Repurchase Program in addition to, and after the repurchase of, the remaining 0.1 million shares under the prior authorization. The new repurchase authorization has no expiration date.

Item 3. Defaults Upon Senior Securities

None

Item 4. Mine Safety Disclosures

None

Item 5. Other Information

(c) Rule 10b5-1 Trading Plans

During the three months ended September 30, 2023, none of our directors or officers (as defined in Rule 16a-1(f) under the Exchange Act) adopted or terminated any contract, instruction or written plan for the purchase or sale of our securities that was intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) under the Exchange Act or any "non-Rule 10b5-1 trading arrangement" as defined in Item 408(c) of Regulation S-K.

Item 6. Exhibits

The Exhibits filed or incorporated by reference herewith are as specified in the Exhibit Index.

CSG SYSTEMS INTERNATIONAL, INC.
EXHIBIT INDEX

Exhibit Number	Description
4.20 (1)	<u>Indenture, dated September 11, 2023, between CSG Systems International, Inc. and U.S. Bank Trust Company, National Association, as trustee</u>
4.25 (1)	<u>Form of 3.875% Convertible Senior Note due 2028 (included as Exhibit A in Exhibit 4.20)</u>
4.60B (2)	<u>Second Amendment to Amended and Restated Credit Agreement, dated September 5, 2023</u>
10.28A*	<u>Second Amendment to the Amended and Restated CSG Master Subscriber Management System Agreement between CSG Systems, Inc. and Charter Communications Operating, LLC</u>
10.28B*	<u>Third Amendment to the Amended and Restated CSG Master Subscriber Management System Agreement between CSG Systems, Inc. and Charter Communications Operating, LLC</u>
10.40 (1)	<u>Form of Capped Call Confirmations</u>
10.53D (3)	<u>Transition Services Agreement with Kenneth M. Kennedy, dated September 27, 2023</u>
10.53E (3)	<u>Separation and Release Agreement with Kenneth M. Kennedy, dated September 28, 2023</u>
31.01	<u>Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</u>
31.02	<u>Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</u>
32.01	<u>Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</u>
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
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)

- (1) Incorporated by reference to the exhibit of the same number to the Registrant's Current Report on Form 8-K for the event dated September 6, 2023.
- (2) Incorporated by reference to the exhibit of the same number to the Registrant's Current Report on Form 8-K for the event dated September 5, 2023.
- (3) Incorporated by reference to the exhibit of the same number to the Registrant's Current Report on Form 8-K for the event dated August 30, 2023.

* Portions of the exhibit have been omitted pursuant to SEC rules regarding confidential information.

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.

Dated: November 2, 2023

CSG SYSTEMS INTERNATIONAL, INC.

/s/ Brian A. Shepherd

Brian A. Shepherd

President and Chief Executive Officer

(Principal Executive Officer)

/s/ Hai Tran

Hai Tran

Executive Vice President and Chief Financial Officer

(Principal Financial Officer)

/s/ Lori J. Szwaneck

Lori J. Szwaneck

Chief Accounting Officer

(Principal Accounting Officer)

THIS DOCUMENT CONTAINS INFORMATION WHICH HAS BEEN EXCLUDED FROM THE EXHIBIT BECAUSE IT IS BOTH (I) NOT MATERIAL AND (II) WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED. SUCH EXCLUDED INFORMATION IS IDENTIFIED BY BRACKETS AND MARKED WITH (***).

SECOND AMENDMENT
TO
AMENDED AND RESTATED
CSG MASTER SUBSCRIBER MANAGEMENT SYSTEM AGREEMENT
BETWEEN
CSG SYSTEMS, INC.
AND
CHARTER COMMUNICATIONS OPERATING, LLC

SCHEDULE AMENDMENT

This **Second Amendment** (the "Amendment") is made by and between **CSG Systems, Inc.**, a Delaware corporation ("CSG"), and **Charter Communications Operating, LLC**, a Delaware limited liability company ("Customer"). CSG and Customer entered into that certain Amended and Restated CSG Master Subscriber Management System Agreement effective as of January 1, 2022 (CSG document no. 44754), as amended (the "Agreement"), and now desire to further amend the Agreement in accordance with the terms and conditions set forth in this Amendment. If the terms and conditions set forth in this Amendment shall be in conflict with the Agreement, the terms and conditions of this Amendment shall control. Any terms in initial capital letters or all capital letters used as a defined term but not defined in this Amendment shall have the meaning set forth in the Agreement. Upon execution of this Amendment by the parties, any subsequent reference to the Agreement between the parties shall mean the Agreement as amended by this Amendment. Except as amended by this Amendment, the terms and conditions set forth in the Agreement shall continue in full force and effect according to their terms.

WHEREAS, CSG provides and Customer consumes Precision eCare® Payment Kiosk Services; and

WHEREAS, Precision eCare® Payment Kiosk Services allows Customer's Connected Subscribers and Non-ACP Subscribers to make payments in the form of cash, check and debit and credit cards; and

WHEREAS, such payments described above in the form of check, debit and credit cards include consumer information subject to then-current PCI-DSS standards; and

WHEREAS, paragraph 6, "Kiosk PCI-Security Responsibilities," of Exhibit Attachment D, "Precision eCare® Payment Kiosks," of Exhibit C-4(a), "CSG Precision eCare® Services," to Schedule C, "Recurring Services" to the Agreement incorporates by reference a "Roles and Responsibilities Document" that provides for obligations of each of CSG and Customer pursuant to PCI-DSS standards; and

WHEREAS, following discussions by and between CSG and Customer, the Parties agree to amend the Agreement such that the referenced document, "Roles and Responsibilities Document" attached hereto as Attachment 1, entitled, "CSG/Charter PCI-DSS Roles and Responsibilities Document" is attached to the Agreement.

WHEREAS, and, as a result, the Parties agree to amend the Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and agreements contained herein and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, CSG and Customer agree to the following as of the Amendment Effective Date (as defined below).

1. Paragraph 6, "Kiosk PCI-Security Responsibilities," of Exhibit Attachment D, "Precision eCare® Payment Kiosks," of Exhibit C-4(a), "CSG Precision eCare® Services," to Schedule C, "Recurring Services" to the Agreement is deleted in its entirety and replaced as follows:

6. Kiosk PCI-Security Responsibilities. CSG and Customer agree to comply with their respective responsibilities provided in that certain Kiosk PCI-Security document “CSG/Charter PCI-DSS Roles and Responsibilities Document,” attached hereto as “Attachment 1 to XX Amendment” which shall be binding on the Parties, subject to the terms of the Agreement and may be updated from time to time by mutual agreement of the Parties to identify roles and responsibilities related to the Precision eCare® Payment Kiosks/Kiosk Units in a manner consistent with then-current industry standards and PCI-DSS standards (the “CSG/Charter PCI-DSS Roles and Responsibilities Document”). Any modification or revision of the CSG/Charter PCI-DSS Roles and Responsibilities Document shall be approved in writing by the CIO of CSG and an appropriate officer of Customer. In the event the Parties are unable to agree upon any modification or revision to the CSG/Charter PCI-DSS Roles and Responsibilities Document in connection with a future change to the PCI-DSS standard, the Parties shall escalate the matter, as provided in the Agreement, to appropriate officers of the respective Parties for resolution. CSG acknowledges and agrees that it is responsible for cardholder data which it possesses, accesses, processes, transmits, otherwise possesses or stores in relation to the Kiosk Units and related Precision eCare® Payment Kiosk Services. Nothing herein limits CSG’s responsibilities under Article 10 of the Agreement with respect to the Kiosk Software.

2. The Parties acknowledge and agree that as of the Amendment Effective Date, the Parties are in compliance with their respective PCI DSS obligations, as described in paragraph 10.b.1(c) of Exhibit B,” General Terms and Conditions,” to Schedule L, “Charter Communications Access Agreement,” to the Agreement.

THIS AMENDMENT is executed to be effective as of the date last signed below (the "Amendment Effective Date").

CHARTER COMMUNICATIONS OPERATING, LLC CSG SYSTEMS, INC. (“CSG”)
(“CUSTOMER”)

By: Charter Communications, Inc., its Manager

By: /s/ Stephanie Babin By: /s/ Michael J Woods

Title: SVP Billing Design Title: SVP BC&S

Name: Stephanie Babin Name: Michael Woods

Date: Aug 15, 2023 Date: Aug 14, 2023

**Attachment 1
to
Exhibit Attachment D
to
Exhibit C-4(a)**

CSG/Charter PCI-DSS Roles and Responsibilities Document

PCI Requirement	Sub-Requirement	CSG Responsibility	Customer Responsibility
Requirement 1: Install and maintain a firewall configuration to protect cardholder data			
1.1 Establish firewall and router configuration standards that include the following: (This covers 1.1.1 through 1.1.7 of the PCI DSS)	1.1.1 - A formal process for approving and testing all network connections and changes to the firewall and router configurations. 1.1.2 Current network diagram that identifies all connections between the cardholder data environment and other networks, including any wireless networks. 1.1.3 Current diagram that shows all cardholder data flows across systems and networks. 1.1.4 Requirements for a firewall at each Internet connection and between any demilitarized zone (DMZ) and the internal network zone 1.1.5 Description of groups, roles, and responsibilities for management of network components. 1.1.6 Documentation and business justification for use of all services, protocols, and ports allowed, including documentation of security features implemented for those protocols considered to be insecure. Examples of insecure services, protocols, or ports include but are not limited to FTP, Telnet, POP3, IMAP, and SNMP v1 and v2. 1.1.7 Requirement to review firewall and router rule sets at least every six months.	<pre>[***** ***** ("**") ***** ***** *** ***** ***** ***** ***** ***** ***** ***** ***** ***** ** ***** ***** ** ** ** ***** ** ***** ***** ** ***** ** ** ***** ***** ** ** ***** ** ** ***** ***** ** ** ***** ** ** ***** ***** ** ** ***** ** *****] [***** ***** ** **** ** **** ***** ***** ***** ***** ***** ** ** ** ** **** **^ ***** ***** ***** ***** ***** **^ ***** **** **^ ***** **^ ***** ***** ***** **** **** ***** **^ ***** ***** **** **** **^ ***** ***** **^ ***** **^ ***** ***** ***** **** ***** ***** **** **^ ***** ***** ***** **** ***** ***** ***** ***** ***** ***** ***** ***** ***** ***** **** ***** ***** ***** ***** ***** ***** ***** ***** ***** *****]</pre>	

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1.2 Build firewall and router configurations that restrict connections between untrusted networks and any system components in the cardholder data environment. (This covers 1.2.1 through 1.2.3 of the PCI DSS)	1.2.1 Restrict inbound and outbound traffic to that which is necessary for the cardholder data environment, and specifically deny all other traffic. 1.2.2 Secure and synchronize router configuration files. 1.2.3 Install perimeter firewalls between all wireless networks and the cardholder data environment, and configure these firewalls to deny or, if traffic is necessary for business purposes, permit only authorized traffic between the wireless environment and the cardholder data environment.	[*** 00000 00000 (00000 0 000 00000000000 00 000 000000 ** 000 000 000 00000000000 000 0000000 0000 00000 0000000000 000 0000000 00 00000 00 00000 0000000000).] ***** 0000000000000000.]	[***** 0000000 0000000 00000000000 000 0000000 000 0000000 0000000000 0000 000 00000 0000000000 00 00000000000 000 000 000 000 0000000 000000000000 00 0000 00000 0000000000 000 000 0000000 0000000.]

1.3 Prohibit direct public access between the Internet and any system component in the cardholder data environment. (This includes 1.3.1 through 1.3.8 of the PCI DSS)	1.3.1 Implement a DMZ to limit inbound traffic to only system components that provide authorized publicly accessible services, protocols, and ports. 1.3.2 Limit inbound Internet traffic to IP addresses within the DMZ. 1.3.3 Do not allow any direct connections inbound or outbound for traffic between the Internet and the cardholder data environment. 1.3.4 Implement anti-spoofing measures to detect and block forged source IP addresses from entering the network. (For example, block traffic originating from the Internet with an internal source address.) 1.3.5 Do not allow unauthorized outbound traffic from the cardholder data environment to the Internet. 1.3.6 Implement stateful inspection, also known as dynamic packet filtering. (That is, only "established" connections are allowed into the network.) 1.3.7 Place system components that store cardholder data (such as a database) in an internal network zone, segregated from the DMZ and other untrusted networks. 1.3.8 Do not disclose private IP addresses and routing information to unauthorized parties.	[*** ***** **** ** ** *****. ***** ***** ** ***** ** *****.]	[***** ***** ***** ***** ** ***** ** ***** ***** ** ** ** ***** ** ** ***** ** ***** ** ** ***** ** ** ***** ** ** ** ** ** ** ** ** *****.]
1.4 Install personal firewall software on any mobile and/or employee-owned devices that connect to the Internet when outside the network (for example, laptops used by employees), and which are also used to access the network. Firewall configurations include: - Specific configuration settings are defined for personal firewall software. - Personal firewall software is actively running. - Personal firewall software is not alterable by users of mobile and/or employee-owned devices.		[*** ** ***** ** ** ** ***** ***** ***** ** *****.]	[** ** ***** ***** *****.]
1.5 Ensure that security policies and operational procedures for managing firewalls are documented, in use, and known to all affected parties.		[***** ***** . ** ** ** ***** ***** ** ***** ** ***** ***** ** ***** ***** ***** ***** ***** *****]	[***** ***** ***** ***** ** ***** ** ***** ** ** ***** ***** ***** ***** ** ** ** ***** ***** ***** ***** *****.]

Requirement 2: Do not use vendor-supplied defaults for system passwords and other security parameters			
2.1 Always change vendor-supplied defaults and remove or disable unnecessary default accounts before installing a system on the network. This applies to ALL default passwords, including but not limited to those used by operating systems, software that provides security services, application and system accounts, point-of-sale (POS) terminals, Simple Network Management Protocol (SNMP) community strings, etc.).	(2.1.1 refers to wireless environments connected to the cardholder data environment. Not applicable for Kiosk or CSG production network.)	[REDACTED]	[REDACTED]
2.2 Develop configuration standards for all system components. Assume that these standards address all known security vulnerabilities and are consistent with industry-accepted system hardening standards. (This covers 2.2.1 through 2.2.5 from the PCI DSS). Sources of industry-accepted system hardening standards may include, but are not limited to:	2.2.1 Implement only one primary function per server to prevent functions that require different security levels from co-existing on the same server. (For example, web servers, database servers, and DNS should be implemented on separate servers.) 2.2.2 Enable only necessary services, protocols, daemons, etc., as required for the function of the system. 2.2.3 Implement additional security features for any required services, protocols, or daemons that are considered to be insecure—for example, use secured technologies such as SSH, S-FTP, SSL, or IPsec VPN to protect insecure services such as NetBIOS, file-sharing, Telnet, FTP, etc. 2.2.4 Configure system security parameters to prevent misuse. 2.2.5 Remove all unnecessary functionality, such as scripts, drivers, features, subsystems, file systems, and unnecessary web servers.	[REDACTED]	[REDACTED]
2.3 Encrypt all non-console administrative access using strong cryptography. Use technologies such as SSH, VPN, or SSL/TLS for web-based management and		[REDACTED]	[REDACTED]

other non-console administrative access.			
2.4 Maintain an inventory of system components that are in scope for PCI DSS.		[REDACTED]	[REDACTED]
2.5 Ensure that security policies and operational procedures for managing vendor defaults and other security parameters are documented, in use, and known to all affected parties.		[REDACTED]	[REDACTED]
2.6 Shared hosting providers must protect each entity's hosted environment and cardholder data. These providers must meet specific requirements as detailed in Appendix A: Additional PCI DSS Requirements for Shared Hosting Providers.		[REDACTED]	[REDACTED]
Requirement 3: Protect stored cardholder data			
3.1 Keep cardholder data storage to a minimum by implementing data retention and disposal policies, procedures and processes that include at least the following for all cardholder data (CHD) storage: - Limiting data storage amount and retention time to that which is required for legal, regulatory, and business requirements - Processes for secure deletion of data when no longer needed - Specific retention requirements for cardholder data - A quarterly process for identifying and securely		[REDACTED]	[REDACTED]

[illegible]

[illegible]

	3.6.8 Requirement for cryptographic key custodians to formally acknowledge that they understand and accept their key-custodian responsibilities.		
3.7 Ensure that security policies and operational procedures for protecting stored cardholder data are documented, in use, and known to all affected parties.		[*****].	[*****].
Requirement 4: Encrypt transmission of cardholder data across open, public networks			
4.1 Use strong cryptography and security protocols (for example, SSL/TLS, IPSEC, SSH, etc.) to safeguard sensitive cardholder data during transmission over open, public networks, including the following: - Only trusted keys and certificates are accepted. - The protocol in use only supports secure versions or configurations. - The encryption strength is appropriate for the encryption methodology in use.	4.1.1 Ensure wireless networks transmitting cardholder data or connected to the cardholder data environment, use industry best practices (for example, IEEE 802.11i) to implement strong encryption for authentication and transmission.	[***** ***** ***** ***** ***** *****] [*****].	[***** ***** ***** ***** ***** *****] [*****].
4.2 Never send unprotected PANs by end-user messaging technologies (for example, e-mail, instant messaging, chat, etc.).		[*** ***** *****].	[*** ***** *****].

4.3 Ensure that security policies and operational procedures for encrypting transmissions of cardholder data are documented, in use, and known to all affected parties.		[*****].	[*****].
Requirement 5: Use and regularly update anti-virus software or programs			
5.1 Deploy anti-virus software on all systems commonly affected by malicious software (particularly personal computers and servers).	5.1.1 Ensure that anti-virus programs are capable of detecting, removing, and protecting against all known types of malicious software. 5.1.2 For systems considered to be not commonly affected by malicious software, perform periodic evaluations to identify and evaluate evolving malware threats in order to confirm whether such systems continue to not require anti-virus software.	[***** ("****") ***** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ****, ** ***** ** ***** ***** ***** ** ***,** ***** *****].	[** ***** ***** ** ***** ** ** ** ** ** ** ** ** ** ***, ***** ** ***** ** ** ** ** *****].
5.2 Ensure that all anti-virus mechanisms are maintained as follows: - Are kept current, - Perform periodic scans - Generate audit logs which are retained per PCI DSS Requirement 10.7.		[***** ** ***** ** ** ** ** ** ** ** ** ** ** ** ** ***** ** ***** ***** ***** ***,** ***** *****].	[** ***** ***** ***** ** ** **^ ** ** ** ** ** ***, ***** ***** ***** ** ** ** *****].
5.3 Ensure that anti-virus mechanisms are actively running and cannot be disabled or altered by users, unless specifically authorized by management on a case-by-case basis for a limited time period.		[** ***** ** ***** ***** ***** ** ***,** ***** *****].	[***** ** ***** ** ** ***** ** ** *****].
5.4 Ensure that security policies and operational procedures for protecting systems against malware are documented, in use, and known to all affected parties.		[***** ***** ***** ***** (** ***** ** ***** ** ***) ** ** ** ** ** ** ***** ***** ** ** ***** ***** ***** ** ***** ***** ** ***** ** ***** ** ***** ***** ** ***** ** *****].	[***** ***** ***** ***** (** ***** ** ***** { ***** ** ***** ** ***** ***** ** ***** ***** ***** ** ***** ***** ** ** ***** ***** ***** ** ** ***** *****].
Requirement 6: Develop and maintain secure systems and applications			

6.1 Establish a process to identify security vulnerabilities, using reputable outside sources for security vulnerability information, and assign a risk ranking (for example, as "high," "medium," or "low") to newly discovered security vulnerabilities.	NanoPoint and Precision eCare software	[***** ***** *****, *** *** ***** ***** **** ***** ***** ***** ** ***** ***** ***** ***** ***** ** *** ***** *****, ***** ** **** ** ** *****, *** ***** **** ***** ** ** ***** *****. ***** ***** ** ** ***** ***** ** **** ***** **** *** ***** **** *****. ***** *****(*) ***** ** ** ** ***** **** *****. ***** ***** ***** ** ***** **** ** *****].	[***** ** ***** ***** ***** ***** **, **** ** ** ***** ***** ***** *****].
6.2 Ensure that all system components and software are protected from known vulnerabilities by installing applicable vendor-supplied security patches. Install critical security patches within one month of release.		[*** ***** **** ***** ***** ** ***** ** ***** ***** ** ***** ***** ** ***** ** ***** ** ***** ** ** ***** *****. ***** **** ** ***** ***** **** **** ***** ** ** ***** **** *****. ***** **** ** ** ***** ***** ***** **** ***** ***** ***** ** *****. ***** ***** ***** ** ** *****. ***** ***** **** ** ***** ** *****. ***** ** ***** ***** ***** ** ***** *****].	[***** ***** ***** ***** **** ** ***** ***** ***** ***** ***** **, **** ***** ***** ***** ** ** *****. ***** ***** ** ***** **** ***** ***** ** **** ** ***** **** ***** ** ***** ***** *****].
6.3 Develop internal and external software applications (including web-based administrative access to applications) securely, as follows: - In accordance with PCI DSS (for example, secure authentication and logging) - Based on industry standards and/or best	6.3.1 Remove development, test and/or custom application accounts, user IDs, and passwords before applications become active or are released to customers. 6.3.2 Review custom code prior to release to production or customers in order to identify any potential coding vulnerability (using either manual or automated processes) to include at least the following: - Code changes are reviewed by	[***** ***** ***** **** ***** **** ***** ***** ***** ***** *****] ** *****. ***** **** ** ** ***** ***** ***** **** ***** ***** ***** ***** ***** **** ***** ***** *****. ***** ***** ***** **	[****, ***** ***** ***** **** **** ** ***** ***** ** ** ***** ** *****].

practices. Incorporating information security throughout the software-development life cycle	Individuals other than the originating code author, and by individuals knowledgeable about code-review techniques and secure coding practices. - Code reviews ensure code is developed according to secure coding guidelines - Appropriate corrections are implemented prior to release. - Code-review results are reviewed and approved by management prior to release.	[REDACTED]	[REDACTED]
6.4 Follow change control processes and procedures for all changes to system components. The processes must include the following:	6.4.1 Separate development/test environments from production environments, and enforce the separation with access controls. 6.4.2 Separation of duties between development/test and production environments 6.4.3 Production data (live PANs) are not used for testing or development 6.4.4 Removal of test data and accounts before production systems become active 6.4.5 Change control procedures for the implementation of security patches and software modifications must include the following: 6.4.5.1 Documentation of impact. 6.4.5.2 Documented change approval by authorized parties. 6.4.5.3 Functionality testing to verify that the change does not adversely impact the security of the system. 6.4.5.4 Back-out procedures.	[REDACTED]	[REDACTED]
6.5 Address common coding vulnerabilities in software-development processes as follows: - Train developers in secure coding techniques, including how to avoid common coding vulnerabilities, and understanding how sensitive data is handled in memory. - Develop applications based on secure coding guidelines.	6.5.1 - 6.5.10 list the common vulnerabilities to be addressed.	[REDACTED]	[REDACTED]

6.6 For public-facing web applications, address new threats and vulnerabilities on an ongoing basis and ensure these applications are protected against known attacks by either of the following methods: - Reviewing public-facing web applications via manual or automated application vulnerability security assessment tools or methods, at least annually and after any changes Note: This assessment is not the same as the vulnerability scans performed for Requirement 11.2. - Installing an automated technical solution that detects and prevents web-based attacks (for example, a web-application firewall) in front of public-facing web applications, to continually check all traffic.		[*** ***** *****].	[*** ***** *****].
6.7 Ensure that security policies and operational procedures for developing and maintaining secure systems and applications are documented, in use, and known to all affected parties.		[*****].	[*****].
Requirement 7: Restrict access to cardholder data by business need to know			
7.1 Limit access to system components and cardholder data to only those individuals whose job requires such access.	7.1.1 Define access needs for each role, including: · System components and data resources that each role needs to access for their job function · Level of privilege required (for example, user, administrator, etc.) for accessing resources. 7.1.2 Restrict access to privileged user IDs to least privileges necessary to perform job responsibilities. 7.1.3 Assign access based on individual personnel's job classification and function. 7.1.4 Require documented approval by authorized parties specifying required privileges.	[***** **** *****].	[***** ***** *****].
7.2 Establish an access control system for systems components that restricts access based on a user's need to know, and is set to "deny all" unless specifically	7.2.1 Coverage of all system components 7.2.2 Assignment of privileges to individuals based on job classification	[***** ***** *****].	[***** ***** *****].

allowed. This access control system must include the following:	and function. 7.2.3 Default "deny-all" setting.	*****].	*****].
7.3 Ensure that security policies and operational procedures for restricting access to cardholder data are documented, in use, and known to all affected parties.		[*****].	[*****].
Requirement 8: Assign a unique ID to each person with computer access			
8.1 Define and implement policies and procedures to ensure proper user identification management for non-consumer users and administrators on all system components as follows:	8.1.1 Assign all users a unique ID before allowing them to access system components or cardholder data. 8.1.2 Control addition, deletion, and modification of user IDs, credentials, and other identifier objects. 8.1.3 Immediately revoke access for any terminated users. 8.1.4 Remove/disable inactive user accounts at least every 90 days. 8.1.5 Manage IDs used by vendors to access, support, or maintain system components via remote access as follows: - Enabled only during the time period needed and disabled when not in use. - Monitored when in use. 8.1.6 Limit repeated access attempts by locking out the user ID after not more than six attempts. 8.1.7 Set the lockout duration to a minimum of 30 minutes or until an administrator enables the user ID. 8.1.8 If a session has been idle for more than 15 minutes, require the user to re-authenticate to re-activate the terminal or session.	[*****. ****, ****. ****. *****].	[*****. *****. *****. *****. *****].

[illegible]

8.5 Do not use group, shared, or generic IDs, passwords, or other authentication methods as follows: - Generic user IDs are disabled or removed. - Shared user IDs do not exist for system administration and other critical functions. - Shared and generic user IDs are not used to administer any system components.	8.5.1 Additional requirement for service providers: Service providers with remote access to customer premises (for example, for support of POS systems or servers) must use a unique authentication credential (such as a password/phrase) for each customer.	[*** ***** ****, **** the ***** *****].	[***** ***** ***** *****].
8.6 Where other authentication mechanisms are used (for example, physical or logical security tokens, smart cards, certificates, etc.), use of these mechanisms must be assigned as follows: - Authentication mechanisms must be assigned to an individual account and not shared among multiple accounts. - Physical and/or logical controls must be in place to ensure only the intended account can use that mechanism to gain access.		[***** *****].	[*****]
8.7 All access to any database containing cardholder data (including access by applications, administrators, and all other users) is restricted as follows: - All user access to, user queries of, and user actions on databases are through programmatic methods. - Only database administrators have the ability to directly access or query databases. - Application IDs for database applications can only be used by the applications (and not by individual users or other non-application processes).		[****_*** ****].	[**** *****].
8.8 Ensure that security policies and operational procedures for identification and authentication are documented, in use, and known to all affected parties.		[*****].	[*****].

Requirement 9: Restrict physical access to cardholder data			
9.1 Use appropriate facility entry controls to limit and monitor physical access to systems in the cardholder data environment.	9.1.1 Use video cameras and/or access control mechanisms to monitor individual physical access to sensitive areas. Review collected data and correlate with other entries. Store for at least three months, unless otherwise restricted by law. 9.1.2 Implement physical and/or logical controls to restrict access to publicly accessible network jacks. 9.1.3 Restrict physical access to wireless access points, gateways, handheld devices, networking/communications hardware, and telecommunication lines.	[*****], ***** ***** *****].	[*****], *****].
9.2 Develop procedures to easily distinguish between onsite personnel and visitors, to include: - Identifying new onsite personnel or visitors (for example, assigning badges) - Changes to access requirements - Revoking or terminating onsite personnel and expired visitor identification (such as ID badges).		[*****], ***** ***** *****].	[*****], *****].
9.3 Control physical access for onsite personnel to the sensitive areas as follows: - Access must be authorized and based on individual job function. - Access is revoked immediately upon termination, and all physical access mechanisms, such as keys, access cards, etc., are returned or disabled.	9.3.a For a sample of onsite personnel with physical access to the CDE, interview responsible personnel and observe access control lists to verify that: - Access to the CDE is authorized. - Access is required for the individual's job function. 9.3.b Observe personnel access the CDE to verify that all personnel are authorized before being granted access. 9.3.c Select a sample of recently terminated employees and review access control lists to verify the personnel do not have physical access to the CDE.	[*****], ***** ***** *****].	[*****], *****].

9.4 Implement procedures to identify and authorize visitors. Procedures should include the following:	9.4.1 Visitors are authorized before entering, and escorted at all times within, areas where cardholder data is processed or maintained. 9.4.2 Visitors are identified and given a badge or other identification that expires and that visibly distinguishes the visitors from onsite personnel. 9.4.3 Visitors are asked to surrender the badge or identification before leaving the facility or at the date of expiration. 9.4.4 A visitor log is used to maintain a physical audit trail of visitor activity to the facility as well as computer rooms and data centers where cardholder data is stored or transmitted. Document the visitor's name, the firm represented, and the onsite personnel authorizing physical access on the log. Retain this log for a minimum of three months, unless otherwise restricted by law.	[***** *****].	[***** *****].
9.5 Physically secure all media.	9.5.1 Store media backups in a secure location, preferably an off-site facility, such as an alternate or backup site, or a commercial storage facility. Review the location's security at least annually.	[***** ***** ***** *****].	[***** ***** *****].
9.6 Maintain strict control over the internal or external distribution of any kind of media, including the following:	9.6.1 Classify media so the sensitivity of the data can be determined. 9.6.2 Send the media by secured courier or other delivery method that can be accurately tracked. 9.6.3 Ensure management approves any and all media that is moved from a secured area (including when media is distributed to individuals).	[***** ***** ***** *****].	[***** ***** *****].
9.7 Maintain strict control over the storage and accessibility of media.	9.7.1 Properly maintain inventory logs of all media and conduct media inventories at least annually.	[***** ***** ***** *****].	[***** ***** *****].

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9.8 Destroy media when it is no longer needed for business or legal reasons as follows:	9.8.1 Shred, incinerate, or pulp hard-copy materials so that cardholder data cannot be reconstructed. Secure storage containers used for materials that are to be destroyed. 9.8.2 Render cardholder data on electronic media unrecoverable so that cardholder data cannot be reconstructed.	[***** ****, ***** ***** **** ** **** ** ***** ** ***** **** ** ***** **** ***** ***** ** ***** **** ***** **** ** *****].	[***** **** ****, ***** **** ***** ***** **** ***** ***** ***** ***** ***** **** ***** (***) ***** ****]].
9.9 Protect devices that capture payment card data via direct physical interaction with the card from tampering and substitution.	9.9.1 Maintain an up-to-date list of devices. The list should include the following: - Make, model of device - Location of device (for example, the address of the site or facility where the device is located) - Device serial number or other method of unique identification. 9.9.2 Periodically inspect device surfaces to detect tampering (for example, addition of card skimmers to devices), or substitution (for example, by checking the serial number or other device characteristics to verify it has not been swapped with a fraudulent device). 9.9.3 Provide training for personnel to be aware of attempted tampering or replacement of devices. Training should include the following: - Verify the identity of any third-party persons claiming to be repair or maintenance personnel, prior to granting them access to modify or troubleshoot devices. - Do not install, replace, or return devices without verification. - Be aware of suspicious behavior around devices (for example, attempts by unknown persons to unplug or open devices). - Report suspicious behavior and indications of device tampering or substitution to appropriate personnel (for example, to a manager or security officer).	[**** ***** **** **** * **** **** ***** ** * ***** ***** ***** **** ***** **** ** ***** ***** ** ***** ***** ***** ** ***** **** *****].	[***** ***** ****, ***** **** ***** ** ***** ***** *****].
9.10 Ensure that security policies and operational procedures for restricting physical access to cardholder data are documented, in use, and known to all affected parties.		[***** ***** *****].	[***** ***** *****].
Requirement 10: Track and monitor all access to			

network resources and cardholder data			
10.1 Implement audit trails to link all access to system components to each individual user.		[***** ***** ***** ** ***** ***** ***** *****, **** ***** ** ** ***** ***** ** ***** ** ***** ***** ** ** ***** ***** *****].	[***** ** ***** ***** ***** ** ** ***** ***** ***** *****].
10.2 Implement automated audit trails for all system components to reconstruct the following events:	10.2.1 All individual user accesses to cardholder data 10.2.2 All actions taken by any individual with root or administrative privileges 10.2.3 Access to all audit trails 10.2.4 Invalid logical access attempts 10.2.5 Use of and changes to identification and authentication mechanisms—including but not limited to creation of new accounts and elevation of privileges—and all changes, additions, or deletions to accounts with root or administrative privileges 10.2.6 Initialization, stopping, or pausing of the audit logs 10.2.7 Creation and deletion of system-level objects	[***** ***** ***** ** ***** ***** ***** [***** **** ***** ** ** ***** ***** ** ***** ** ***** ***** ** ** ***** ***** *****].	[***** ** ***** ***** ***** ***** ** ** ***** ***** ***** ***** *****].
10.3 Record at least the following audit trail entries for all system components for each event:	10.3.1 User identification 10.3.2 Type of event 10.3.3 Date and time 10.3.4 Success or failure indication 10.3.5 Origination of event 10.3.6 Identity or name of affected data, system component, or resource.	[***** ***** ***** ** ***** ***** ***** [***** **** ***** ** ** ***** ***** ** ***** ** ***** ***** ** ** ***** ***** *****].	[***** ** ***** ***** ***** ***** ** ** ***** ***** ***** ***** ***** *****].
10.4 Using time-synchronization technology, synchronize all critical system clocks and times and ensure that the following is implemented for acquiring, distributing, and storing time.	10.4.1 Critical systems have the correct and consistent time. 10.4.2 Time data is protected. 10.4.3 Time settings are received from industry-accepted time sources.	[***** ***** ** ***** ** ***** ** ***** ** ** ***** ***** ***** ** ***** ***** ***** *****].	[***** ***** ** ***** ***** ***** ***** ***** ***** *****].

10.5 Secure audit trails so they cannot be altered.	10.5.1 Limit viewing of audit trails to those with a job-related need. 10.5.2 Protect audit trail files from unauthorized modifications. 10.5.3 Promptly back up audit trail files to a centralized log server or media that is difficult to alter. 10.5.4 Write logs for external-facing technologies onto a secure, centralized, internal log server or media device. 10.5.5 Use file-integrity monitoring or change-detection software on logs to ensure that existing log data cannot be changed without generating alerts (although new data being added should not cause an alert).	[REDACTED]	[REDACTED]
10.6 Review logs and security events for all system components to identify anomalies or suspicious activity.	10.6.1 Review the following at least daily: - All security events - Logs of all system components that store, process, or transmit CHD and/or SAD, or that could impact the security of CHD and/or SAD - Logs of all critical system components - Logs of all servers and system components that perform security functions (for example, firewalls, intrusion-detection systems/intrusion-prevention systems (IDS/IPS), authentication servers, e-commerce redirection servers, etc.). 10.6.2 Review logs of all other system components periodically based on the organization's policies and risk management strategy, as determined by the organization's annual risk assessment. 10.6.3 Follow up exceptions and anomalies identified during the review process.	[REDACTED]	[REDACTED]
10.7 Retain audit trail history for at least one year, with a minimum of three months immediately available for analysis (for example, online, archived, or restorable from backup).		[REDACTED]	[REDACTED]
10.8 Ensure that security policies and operational procedures for monitoring all access to network resources and cardholder data are documented, in use, and known to all affected parties.		[REDACTED]	[REDACTED]

11.3 Implement a methodology for penetration testing that includes the following: - Is based on industry-accepted penetration testing approaches (for example, NIST SP800-115) - Includes coverage for the entire CDE perimeter and critical systems - Includes testing from both inside and outside the network - Includes testing to validate any segmentation and scope-reduction controls - Defines application-layer penetration tests to include, at a minimum, the vulnerabilities listed in Requirement 6.5 - Defines network-layer penetration tests to include components that support network functions as well as operating systems - Includes review and consideration of threats and vulnerabilities experienced in the last 12 months - Specifies retention of penetration testing results and remediation activities results.	11.3.1 Perform external penetration testing at least annually and after any significant infrastructure or application upgrade or modification (such as an operating system upgrade, a sub-network added to the environment, or a web server added to the environment). 11.3.2 Perform internal penetration testing at least annually and after any significant infrastructure or application upgrade or modification (such as an operating system upgrade, a sub-network added to the environment, or a web server added to the environment). 11.3.3 Exploitable vulnerabilities found during penetration testing are corrected and testing is repeated to verify the corrections. 11.3.4 If segmentation is used to isolate the CDE from other networks, perform penetration tests at least annually and after any changes to segmentation controls/methods to verify that the segmentation methods are operational and effective, and isolate all out-of-scope systems from in-scope systems.	[REDACTED]	[REDACTED]
11.4 Use intrusion-detection and/or intrusion-prevention techniques to detect and/or prevent intrusions into the network. Monitor all traffic at the perimeter of the cardholder data environment as well as at critical points in the cardholder data environment, and alert personnel to suspected compromises. Keep all intrusion-detection and prevention engines, baselines, and signatures up to date.		[REDACTED]	[REDACTED]

11.5 Deploy a change-detection mechanism (for example, file-integrity monitoring tools) to alert personnel to unauthorized modification of critical system files, configuration files, or content files; and configure the software to perform critical file comparisons at least weekly.		[***** *****] [***** *****]	[***** *****].
11.6 Ensure that security policies and operational procedures for security monitoring and testing are documented, in use, and known to all affected parties.		{*****}	{*****}
Requirement 12: Maintain a policy that addresses information security for all personnel.			
12.1 Establish, publish, maintain, and disseminate a security policy.	12.1.1 Review the security policy at least annually and update the policy when the environment changes.	[***** ***** ***** *****]	[***** ***** ***** *****]
12.2 Implement a risk-assessment process that: - Is performed at least annually and upon significant changes to the environment (for example, acquisition, merger, relocation, etc.). - Identifies critical assets, threats, and vulnerabilities, and - Results in a formal risk assessment.		[***** ***** ***** *****]	[***** ***** ***** *****]

12.3 Develop usage policies for critical technologies and define proper use of these technologies. Ensure these usage policies require the following:	12.3.1 Explicit approval by authorized parties 12.3.2 Authentication for use of the technology 12.3.3 A list of all such devices and personnel with access 12.3.4 A method to accurately and readily determine owner, contact information, and purpose (for example, labeling, coding, and/or inventorying of devices) 12.3.5 Acceptable uses of the technology 12.3.6 Acceptable network locations for the technologies 12.3.7 List of company-approved products 12.3.8 Automatic disconnect of sessions for remote-access technologies after a specific period of inactivity 12.3.9 Activation of remote-access technologies for vendors and business partners only when needed by vendors and business partners, with immediate deactivation after use 12.3.10 For personnel accessing cardholder data via remote-access technologies, prohibit the copying, moving, and storage of cardholder data onto local hard drives and removable electronic media, unless explicitly authorized for a defined business need. Where there is an authorized business need, the usage policies must require the data be protected in accordance with all applicable PCI DSS Requirements.	[REDACTED]	[REDACTED]
12.4 Ensure that the security policy and procedures clearly define information security responsibilities for all personnel.	[REDACTED]	[REDACTED]	[REDACTED]
12.5 Assign to an individual or team the following information security management responsibilities:	12.5.1 Establish, document, and distribute security policies and procedures. 12.5.2 Monitor and analyze security alerts and information, and distribute to appropriate personnel. 12.5.3 Establish, document, and distribute security incident response and escalation procedures to ensure timely and effective handling of all situations. 12.5.4 Administer user accounts, including additions, deletions, and modifications. 12.5.5 Monitor and control all access to data.	[REDACTED]	[REDACTED]

12.6 Implement a formal security awareness program to make all personnel aware of the importance of cardholder data security.	12.6.1 Educate personnel upon hire and at least annually. 12.6.2 Require personnel to acknowledge at least annually that they have read and understood the security policy and procedures.	[***** *****].	[***** *****].
12.7 Screen potential personnel prior to hire to minimize the risk of attacks from internal sources. (Examples of background checks include previous employment history, criminal record, credit history, and reference checks.)		[*****].	[*****].
12.8 Maintain and implement policies and procedures to manage service providers with whom cardholder data is shared, or that could affect the security of cardholder data, as follows:	12.8.1 Maintain a list of service providers. 12.8.2 Maintain a written agreement that includes an acknowledgement that the service providers are responsible for the security of cardholder data the service providers possess or otherwise store, process or transmit on behalf of the customer, or to the extent that they could impact the security of the customer's cardholder data environment. 12.8.3 Ensure there is an established process for engaging service providers including proper due diligence prior to engagement. 12.8.4 Maintain a program to monitor service providers' PCI DSS compliance status at least annually. 12.8.5 Maintain information about which PCI DSS requirements are managed by each service provider, and which are managed by the entity.	[***** *****].	[***** *****].
12.9 Additional requirement for service providers: Service providers acknowledge in writing to customers that they are responsible for the security of cardholder data the service provider possesses or otherwise stores, processes, or transmits on behalf of the customer, or to the extent that they could impact the security of the customer's cardholder data environment.		[***** *****].	[**]

12.10 Implement an incident response plan. Be prepared to respond immediately to a system breach.	12.10.1 Create the incident response plan to be implemented in the event of system breach. Ensure the plan addresses the following, at a minimum: - Roles, responsibilities, and communication and contact strategies in the event of a compromise including notification of the payment brands, at a minimum - Specific incident response procedures - Business recovery and continuity procedures - Data backup processes - Analysis of legal requirements for reporting compromises - Coverage and responses of all critical system components - Reference or inclusion of incident response procedures from the payment brands. 12.10.2 Test the plan at least annually. 12.10.3 Designate specific personnel to be available on a 24/7 basis to respond to alerts. 12.10.4 Provide appropriate training to staff with security breach response responsibilities. 12.10.5 Include alerts from security monitoring systems, including but not limited to intrusion-detection, intrusion-prevention, firewalls, and file-integrity monitoring systems. 12.10.6 Develop a process to modify and evolve the incident response plan according to lessons learned and to incorporate industry developments.	<pre>[***** ***** * ***** ***** **** ***** ***** *****].</pre>	<pre>[***** ***** ** *** ***** ***** **** ***** ***** ***** ***** ** *** ***** ***** ***** ***** ***** ***** ***** ***** *****].</pre>
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THIS DOCUMENT CONTAINS INFORMATION WHICH HAS BEEN EXCLUDED FROM THE EXHIBIT BECAUSE IT IS BOTH (I) NOT MATERIAL AND (II) WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED. SUCH EXCLUDED INFORMATION IS IDENTIFIED BY BRACKETS AND MARKED WITH (***).

THIRD AMENDMENT
TO
AMENDED AND RESTATED
CSG MASTER SUBSCRIBER MANAGEMENT SYSTEM AGREEMENT
BETWEEN
CSG SYSTEMS, INC.
AND
CHARTER COMMUNICATIONS OPERATING, LLC

SCHEDULE AMENDMENT

This **Third Amendment** (the "Amendment") is made by and between **CSG Systems, Inc.**, a Delaware corporation ("CSG"), and **Charter Communications Operating, LLC**, a Delaware limited liability company ("Customer"). CSG and Customer entered into that certain Amended and Restated CSG Master Subscriber Management System Agreement effective as of January 1, 2022 (CSG document no. 44754), as amended (the "Agreement"), and now desire to further amend the Agreement in accordance with the terms and conditions set forth in this Amendment. If the terms and conditions set forth in this Amendment shall be in conflict with the Agreement, the terms and conditions of this Amendment shall control. Any terms in initial capital letters or all capital letters used as a defined term but not defined in this Amendment shall have the meaning set forth in the Agreement. Upon execution of this Amendment by the parties, any subsequent reference to the Agreement between the parties shall mean the Agreement as amended by this Amendment. Except as amended by this Amendment, the terms and conditions set forth in the Agreement shall continue in full force and effect according to their terms.

WHEREAS, Customer has previously purchased and CSG has provided ACPV (as defined in the Agreement) for Customer's use, pursuant to the Agreement; and

WHEREAS, Customer desires to use and CSG agrees to provide additional functionality to ACPV in support of Customer's Direct Inward Dialing ("DID") Services such that ACPV will have the ability to support Customer's telephone number ("TN") inventory (the "DID Functionality"); and

WHEREAS, Customer desires and CSG agrees to provide the DID Functionality for Customer's Connected Subscribers as provided herein and pursuant to the Agreement.

NOW, THEREFORE, CSG and Customer agree as follows, as of the Amendment Effective Date:

I. Customer hereby requests and CSG agrees to configure and implement Direct Inward Dialing ("DID"). Therefore, upon execution of this Amendment the following changes are hereby made to the Agreement:

a) Schedule C, "Recurring Services," of the Agreement shall be amended to include the following:

Direct Inward Dialing ("DID") Exhibit C-6(b)

b) Schedule C of the Agreement, entitled "Recurring Services" of the Agreement shall be amended to add the following under "Recurring Services Description":

Direct Inward Dialing. CSG shall provide Customer with Direct Inward Dialing ("DID") functionality for Customer's utilization ("DID Functionality") in support of Customer's telephone number ("TN") inventory. CSG shall provide maintenance and support of DID Functionality for the fees provided in Schedule E of the Agreement.

c) Schedule C of the Agreement, entitled “Recurring Services” of the Agreement shall be amended to add Exhibit C-6(b), “Direct Inward Dialing” to “Exhibit C-6, “Residential Voice Services” in the form attached as Attachment A, hereto.

2. The parties acknowledge and agree that, for the fees and pursuant to the terms set forth herein, CSG shall provide maintenance and support for the DID Functionality.

As a result, Schedule E, “Fees,” Section 1, “CSG Services,” Section X, “Custom Implementation Services,” shall be amended to add a new subsection “Q,” “Direct Inward Dialing (“DID”) Functionality Maintenance and Support,” as follows:

Q. Direct Inward Dialing (“DID”) Functionality Maintenance and Support

	Description of Item/Unit of Measure	Frequency	Fees
1.	DID Functionality Configuration and Implementation Fees (Note 1)	[*****]	[*****]
2.	DID Functionality Maintenance and Support Fees (Note 2) (Note 3) (Note 4)	[*****]	[*****]

Note 1: Configuration and implementation of DID Functionality shall be pursuant to that certain Statement of Work entitled “Configure and Implement the Direct Inward Dialing Functionality” (CSG document no. [*****]) (the “DID SOW”) to be executed by CSG and Customer.
Note 2: Maintenance and Support of DID Functionality will be invoiced [*****], commencing in the [****-**-****] following completion and deployment and Customer utilization of DID Functionality, pursuant to the DID SOW, which is currently expected to occur in [****].
Note 3: Maintenance and Support includes up to [*****] [**] [*****] per [*****], for the purposes of (i) answering functional questions and resolving reported concerns and (ii) operations support regarding production issues. In the event additional maintenance and support hours are necessary in a given [*****], Customer shall be invoiced at the then current Technical Service hourly rate.
Note 4: Customer may [*****] DID Functionality Maintenance and Support services [*****]; provided, however, Customer shall provide no less than [*****] [**] [*****] written notice (email is sufficient) to CSG prior to [*****] the DID Functionality Maintenance and Support Fees and Customer shall concurrently [*****] of DID Functionality. The DID Functionality Maintenance and Support Fees for the [*****] of the DID Functionality Maintenance and Support services will be due in full regardless of the date on which the notice of [*****] is [*****], and the DID Functionality Maintenance and Support services provided to Customer shall [*****] and [*****] upon such [*****] of [*****].

THIS AMENDMENT is executed to be effective as of the date last signed below (the “Amendment Effective Date”).

CHARTER COMMUNICATIONS OPERATING, LLC (“CUSTOMER”)

CSG SYSTEMS, INC. (“CSG”)

By: Charter Communications, Inc., its Manager

By: /s/ Gina Martinez
Name: Gina Martinez
Title: VP Billing Solutions
Date: Sep 29, 2023

By: /s/ Michael J Woods
Name: Michael Woods
Title: President, BC&S
Date: Sep 28, 2023

ATTACHMENT A

Exhibit C-6(b)

Direct Inward Dialing

1. Direct Inward Dialing. CSG shall provide Customer with Direct Inward Dialing ("DID") for Customer's utilization of DID functionality ("DID Functionality") in support of Customer's telephone number ("TN") inventory. CSG shall provide maintenance and support of DID Functionality for the fees provided in Schedule F of the Agreement.

The DID Functionality will allow the CSRs to:

- Assign a block of TNs from Customer's TN inventory held by CSG for Customer's Connected Subscribers' accounts at the time of ordering
- Assign multiple DID Blocks to a single service associated to a Connected Subscriber's account(s)
- Downgrade a DID Block without a resulting downgrade of a Connected Subscriber's service to which the DID Block is assigned
- Port in/port out a DID Block to accommodate a Connected Subscriber's change of telco service provider(s)
- Transfer a DID Block to another Connected Subscriber account
- Restart a DID Block in a Connected Subscriber account
- Provide DID Block details to a provisioning partner of Customer via Service Order Distribution Interface ("SODI")
- Print the DID Block of TNs with the call detail records of a Connected Subscriber on such Connected Subscriber's statements treated as a single block

2. Requirements. CSG will support the DID Functionality from Customer's ACPV Services with Customer's TN Inventory Management by automating capture of assigned numbers to create a block of numbers (the "DID Block") for Customer's customer services representative ("CSRs").

The DID Functionality is dependent upon Customer's use of CSG's ACP Commercial Services.

3. [***] of Direct Dialing Services.** Customer shall have the right, in its sole discretion and [** *** ***, to ***** or *****] use of the Direct Inward Dialing Services by providing written notice to CSG not less than [***** (**) **** prior to such ***** or *****] (email is sufficient). Upon receipt of such notice, CSG shall [***** *****] its provision of the Direct Inward Dialing Services and the maintenance and support of the DID Functionality pursuant to the terms of Schedule F. "Fees," Section 1, "CSG Services," Section X, "Custom Implementation Services," subsection "W," "Direct Inward Dialing ("DID") Functionality Maintenance and Support, Note 4 of the Fee Table.

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

I, Brian A. Shepherd, certify that:

1. I have reviewed this report on Form 10-Q of CSG Systems International, 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 and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 2, 2023

/s/ Brian A. Shepherd
 Brian A. Shepherd
 President and Chief Executive Officer

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

I, Hai Tran, certify that:

1. I have reviewed this report on Form 10-Q of CSG Systems International, 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 and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 2, 2023

/s/ Hai Tran
 Hai Tran
 Executive Vice President and Chief Financial Officer

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

The certification set forth below is being submitted in connection with the Quarterly Report on Form 10-Q (the "Report") for the purpose of complying with Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code.

Brian A. Shepherd, the Chief Executive Officer and Hai Tran, the Chief Financial Officer of CSG Systems International Inc., each certifies that, to the best of his knowledge:

- (1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act; and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of CSG Systems International, Inc.

November 2, 2023

/s/ Brian A. Shepherd

Brian A. Shepherd
President and Chief Executive Officer

November 2, 2023

/s/ Hai Tran

Hai Tran
Executive Vice President and Chief Financial Officer
