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

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2018

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.)

6175 S. Willow Drive, 10th Floor
Greenwood Village, Colorado 80111
(Address of principal executive offices, including zip code)

(303) 200-2000
(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

YES ☒ NO ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

YES ☒ NO ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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	☐ (Do not check if a smaller reporting company)	Smaller reporting company	☐
Emerging growth company	☐		

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

YES ☐ NO ☒

Shares of common stock outstanding at July 31, 2018: 33,514,309

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CSG SYSTEMS INTERNATIONAL, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS - UNAUDITED
(in thousands, except per share amounts)

	June 30, 2018	December 31, 2017
<u>ASSETS</u>		
Current assets:		
Cash and cash equivalents	\$ 119,671	\$ 122,243
Short-term investments	66,693	139,117
Total cash, cash equivalents and short-term investments	186,364	261,360
Trade accounts receivable:		
Billed, net of allowance of \$3,961 and \$4,149	239,913	219,531
Unbilled	38,832	31,187
Income taxes receivable	10,951	13,839
Other current assets	38,185	28,349
Total current assets	514,245	554,266
Non-current assets:		
Property and equipment, net of depreciation of \$108,542 and \$123,126	75,040	44,651
Software, net of amortization of \$114,010 and \$108,986	30,926	26,906
Goodwill	210,605	210,080
Client contracts, net of amortization of zero and \$97,109	-	43,626
Acquired client contracts, net of amortization of \$79,398 and zero	41,573	-
Client contract costs, net of amortization of \$30,932 and zero	35,527	-
Deferred income taxes	12,303	14,057
Other assets	7,012	10,948
Total non-current assets	412,986	350,268
Total assets	\$ 927,231	\$ 904,534
<u>LIABILITIES AND STOCKHOLDERS' EQUITY</u>		
Current liabilities:		
Current portion of long-term debt	\$ 7,500	\$ 22,500
Client deposits	35,626	31,053
Trade accounts payable	37,316	38,420
Accrued employee compensation	44,498	62,984
Deferred revenue	39,558	41,885
Income taxes payable	1,006	1,216
Other current liabilities	26,262	24,535
Total current liabilities	191,766	222,593
Non-current liabilities:		
Long-term debt, net of unamortized discounts of \$16,721 and \$18,264	353,904	309,236
Deferred revenue	9,074	12,346
Income taxes payable	2,396	2,415
Deferred income taxes	9,162	4,584
Other non-current liabilities	11,069	10,614
Total non-current liabilities	385,605	339,195
Total liabilities	577,371	561,788
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; 33,561 and 33,516 shares outstanding	692	689
Common stock warrants; 439 warrants vested and 1,425 issued	9,082	9,082
Additional paid-in capital	431,450	427,091
Treasury stock, at cost; 34,334 and 34,075 shares	(826,066)	(814,732)
Accumulated other comprehensive income (loss):		
Unrealized loss on short-term investments, net of tax	(114)	(88)
Cumulative foreign currency translation adjustments	(37,255)	(28,734)
Accumulated earnings	772,071	749,438
Total stockholders' equity	349,860	342,746
Total liabilities and stockholders' equity	\$ 927,231	\$ 904,534

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

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

	Quarter Ended		Six Months Ended	
	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017
Revenues:				
Cloud and related solutions	\$ 187,401	\$ 157,879	\$ 364,917	\$ 316,656
Software and services	13,331	15,896	25,290	30,954
Maintenance	12,301	18,938	24,530	37,573
Total revenues	213,033	192,713	414,737	385,183
Cost of revenues (exclusive of depreciation, shown separately below):				
Cloud and related solutions	95,212	77,286	182,120	153,338
Software and services	8,614	10,405	17,147	21,679
Maintenance	5,666	9,969	11,321	20,351
Total cost of revenues	109,492	97,660	210,588	195,368
Other operating expenses:				
Research and development	30,953	27,939	60,332	54,779
Selling, general and administrative	40,624	36,819	81,272	74,165
Depreciation	4,548	3,316	8,462	6,631
Restructuring and reorganization charges	3,329	2,731	4,229	2,979
Total operating expenses	188,946	168,465	364,883	333,922
Operating income	24,087	24,248	49,854	51,261
Other income (expense):				
Interest expense	(4,480)	(4,146)	(8,746)	(8,452)
Amortization of original issue discount	(661)	(625)	(1,313)	(1,513)
Interest and investment income, net	770	704	1,581	1,510
Loss on extinguishment of debt	-	-	(810)	-
Other, net	1,008	122	362	(153)
Total other	(3,363)	(3,945)	(8,926)	(8,608)
Income before income taxes	20,724	20,303	40,928	42,653
Income tax provision	(5,607)	(8,722)	(11,797)	(10,835)
Net income	\$ 15,117	\$ 11,581	\$ 29,131	\$ 31,818
Weighted-average shares outstanding:				
Basic	32,589	32,572	32,558	32,294
Diluted	32,908	32,996	33,005	32,795
Earnings per common share:				
Basic	\$ 0.46	\$ 0.36	\$ 0.89	\$ 0.99
Diluted	0.46	0.35	0.88	0.97

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

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

	Quarter Ended		Six Months Ended	
	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017
Net income	\$ 15,117	\$ 11,581	\$ 29,131	\$ 31,818
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustments	(16,231)	5,225	(8,521)	9,564
Unrealized holding gains (losses) on short-term investments arising during period	68	103	(26)	147
Other comprehensive income (loss), net of tax	(16,163)	5,328	(8,547)	9,711
Total comprehensive income (loss), net of tax	<u>\$ (1,046)</u>	<u>\$ 16,909</u>	<u>\$ 20,584</u>	<u>\$ 41,529</u>

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

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

	Six Months Ended	
	June 30, 2018	June 30, 2017
Cash flows from operating activities:		
Net income	\$ 29,131	\$ 31,818
Adjustments to reconcile net income to net cash provided by operating activities-		
Depreciation	8,462	6,631
Amortization	20,957	14,418
Amortization of original issue discount	1,313	1,513
Asset impairment	1,001	2,147
Gain on short-term investments and other	(108)	(37)
Loss on extinguishment of debt	810	-
Deferred income taxes	4,944	1,725
Stock-based compensation	10,213	11,644
Changes in operating assets and liabilities, net of acquired amounts:		
Trade accounts receivable, net	(11,369)	7,796
Other current and non-current assets	(13,995)	(4,787)
Income taxes payable/receivable	1,828	(1,402)
Trade accounts payable and accrued liabilities	(27,772)	(19,266)
Deferred revenue	799	12,288
Net cash provided by operating activities	26,214	64,488
Cash flows from investing activities:		
Purchases of property and equipment	(26,715)	(18,738)
Purchases of short-term investments	(44,345)	(73,831)
Proceeds from sale/maturity of short-term investments	116,866	104,291
Acquisition of and investments in business, net of cash acquired	(68,636)	-
Acquisition of and investments in client contracts	-	(7,526)
Net cash provided by (used in) investing activities	(22,830)	4,196
Cash flows from financing activities:		
Proceeds from issuance of common stock	1,134	846
Payment of cash dividends	(14,375)	(13,713)
Repurchase of common stock	(18,319)	(16,482)
Proceeds from long-term debt	150,000	-
Payments on long-term debt	(121,875)	(7,500)
Settlement of convertible notes	-	(34,771)
Payments of deferred financing costs	(1,490)	-
Net cash used in financing activities	(4,925)	(71,620)
Effect of exchange rate fluctuations on cash	(1,031)	1,696
Net decrease in cash and cash equivalents	(2,572)	(1,240)
Cash and cash equivalents, beginning of period	122,243	126,351
Cash and cash equivalents, end of period	\$ 119,671	\$ 125,111
Supplemental disclosures of cash flow information:		
Cash paid during the period for-		
Interest	\$ 7,744	\$ 7,629
Income taxes	4,778	10,490

The accompanying notes are an integral part of these 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 June 30, 2018 and December 31, 2017, and for the quarters and six months ended June 30, 2018 and 2017, 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, 2017 (our "2017 10-K"), filed with the SEC. The results of operations for the quarter and six months ended June 30, 2018 are not necessarily indicative of the expected results for the entire year ending December 31, 2018.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Use of Estimates in Preparation of Financial Statements. The preparation of the accompanying Financial Statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of our Financial Statements, and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates.

Revenue. We adopted Topic 606 *Revenue from Contracts with Customers* ("ASC 606") as of January 1, 2018 using the cumulative effect method and have applied ASC 606 to all contracts with clients that had not been completed as of the date of initial application. In conjunction with the adoption of ASC 606, we recorded a cumulative adjustment increasing beginning retained earnings (net of tax) by approximately \$7 million, primarily related to contracts that we were previously required to defer revenue as we did not have vendor specific objective evidence ("VSOE") of fair value for certain undelivered elements. Since we adopted ASC 606 using the cumulative effect method, comparative information in our Financial Statements has not been adjusted and continues to be as previously reported.

The following tables summarize the impacts of adopting ASC 606 on our Financial Statements as of and for the quarter and six months ended June 30, 2018 (in thousands, except per share amounts):

	As of June 30, 2018		
	As Reported	Adjustments	Balances without adoption of ASC 606
Condensed Balance Sheet			
Unbilled trade accounts receivable	\$ 38,832	\$ (614)	\$ 38,218
Other current assets	38,185	3,670	41,855
Client contracts, net of amortization	-	69,125	69,125
Acquired client contracts, net of amortization	41,573	(41,573)	-
Client contract costs, net of amortization	35,527	(35,527)	-
Other non-current assets	7,012	4,305	11,317
Other assets	766,102	-	766,102
Total assets (1)	\$ 927,231	\$ (614)	\$ 926,617
Deferred revenue	\$ 48,632	\$ 3,218	\$ 51,850
Deferred income taxes	9,162	(179)	8,983
Other liabilities	519,577	-	519,577
Total liabilities	577,371	3,039	580,410
Accumulated earnings	772,071	(3,653)	768,418
Other stockholders' equity	(422,211)	-	(422,211)
Total stockholders' equity	349,860	(3,653)	346,207
Total stockholders' equity and liabilities	\$ 927,231	\$ (614)	\$ 926,617

(1) See Note 3 for further discussion related to the reclassification of our client contracts and client contract costs.

Quarter Ended June 30, 2018			
Condensed Statement of Income	As Reported	Adjustments	Balances without adoption of ASC 606
Revenues:			
Cloud and related services (2)	\$ 187,401	\$ (6,138)	\$ 181,263
Software and services (2)	13,331	1,587	14,918
Maintenance (2)	12,301	5,197	17,498
Total revenues	213,033	646	213,679
Cost of revenues:			
Cloud and related services (2)	95,212	(4,703)	90,509
Software and services (2)	8,614	215	8,829
Maintenance (2)	5,666	4,488	10,154
Total cost of revenues	109,492	-	109,492
Other expenses	82,817	-	82,817
Income before income taxes	20,724	646	21,370
Income tax provision	(5,607)	(187)	(5,794)
Net income	\$ 15,117	\$ 459	\$ 15,576
Net income per diluted share	\$ 0.46	\$ 0.01	\$ 0.47

Six Months Ended June 30, 2018			
Condensed Statement of Income	As Reported	Adjustments	Balances without adoption of ASC 606
Revenues:			
Cloud and related services (2)	\$ 364,917	\$ (13,132)	\$ 351,785
Software and services (2)	25,290	3,153	28,443
Maintenance (2)	24,530	10,325	34,855
Total revenues	414,737	346	415,083
Cost of revenues:			
Cloud and related services (2)	182,120	(10,998)	171,122
Software and services (2)	17,147	452	17,599
Maintenance (2)	11,321	9,602	20,923
Total cost of revenues	210,588	(944)	209,644
Other expenses	163,221	-	163,221
Income before income taxes	40,928	1,290	42,218
Income tax provision	(11,797)	(374)	(12,171)
Net income	\$ 29,131	\$ 916	\$ 30,047
Net income per diluted share	\$ 0.88	\$ 0.03	\$ 0.91

- (2) Adjustments are primarily related to software license products and related maintenance contracted as part of our cloud solutions contracts that were not capable of being distinct as a separate performance obligation under ASC 606 and are included in cloud solutions services in the quarter and six months ended June 30, 2018. Costs associated with these products were also reclassified to cost of cloud solution services in the quarter and six months ended June 30, 2018.

Condensed Statement of Cash Flows	Six Months Ended June 30, 2018		
	As Reported	Adjustments	Balances without adoption of ASC 606
Net income	\$ 29,131	\$ 916	\$ 30,047
Adjustments to reconcile net income to net cash provided by operating activities -			
Amortization	20,957	(2,002)	18,955
Deferred income taxes	4,944	374	5,318
Other	21,691	-	21,691
Changes in operating assets and liabilities:			
Other current and non-current assets	(13,995)	5,349	(8,646)
Deferred revenue	799	(1,126)	(327)
Other	(37,313)	-	(37,313)
Net cash provided by operating activities	26,214	3,511	29,725
Cash flows from investing activities:			
Acquisition of and investments in client contracts	-	(3,511)	(3,511)
Other	(22,830)	-	(22,830)
Net cash used in investing activities	(22,830)	(3,511)	(26,341)
Net cash used in financing activities	(4,925)	-	(4,925)
Effect of exchange rate fluctuations on cash	(1,031)	-	(1,031)
Net decrease cash and cash equivalents	(2,572)	-	(2,572)
Cash and cash equivalents, beginning of period	122,243	-	122,243
Cash and cash equivalents, end of period	\$ 119,671	\$ -	\$ 119,671

As a result of adopting ASC 606, we have changed our accounting policies for revenue recognition as discussed in more detail below.

In summary, our revenue from client contracts is primarily related to our cloud and related solutions and, to a lesser degree, software and service and related maintenance arrangements, and is measured based on consideration specified within each of our contracts, excluding sales incentives and amounts collected on behalf of third parties, if any. We account for various products and services separately if they are distinct. A product or service, or group of products or services, is distinct if it is separately identifiable from other items in the context of the contract and if our client can benefit from the product or service on their own or with other resources that are readily available to that client. We recognize revenue when we satisfy our performance obligations by transferring control over a particular product or service, or group of products or services, to our clients, as described in more detail below. Taxes assessed on our products and services based on governmental authorities at the time of invoicing are excluded from our revenue.

Cloud and Related Solutions.

Our cloud and related solutions revenue relates to: (i) our software-as-a-service (“SaaS”), cloud-based, revenue management and content monetization solutions, and various related ancillary services; and (ii) our managed services offering in which we operate software solutions (primarily our software solutions) on behalf of our clients.

We contract for our cloud-based solutions using long-term arrangements whose terms have typically ranged from three to five years. The long-term cloud-based arrangements include a series of multiple services delivered daily or monthly, to include such things as: (i) revenue billing and customer communications management services; (ii) business support services (e.g., workforce management tools, consumer credit verifications, etc.); (iii) content monetization and delivery functions; and (iv) customer statement invoice printing and mailing services. The fees for these services typically are billed to our clients monthly based upon actual monthly volumes and/or usage of services (e.g., the number of client customers maintained on our systems, the number of transactions processed on our systems, and/or the quantity and content of the monthly statements and mailings processed through our systems).

For cloud-based solution contracts, the total contract consideration (including impacts of discounts or incentives) is primarily variable dependent upon actual monthly volumes and/or usage of services; however, these contracts can also include ancillary fixed consideration in the form of one-time, monthly or annual fees. Although there may be multiple performance obligations, there is generally no allocation of value between the individual performance obligations as all are considered cloud and related solutions revenues that are recognized based on activities performed in each daily or monthly period.

We contract for managed services solutions using long-term arrangements whose terms have typically ranged from three to five years. Under managed services agreements, we may operate software products (primarily our software solutions) on behalf of our clients: (i) out of a client's data center; (ii) out of a data center we own and operate; or (iii) out of a third-party data center we contract with for such services. Managed services can also include us providing other services, such as transitional services, fulfillment, remittance processing, operational consulting, back office, and end user billing services. The fees for these services typically are billed to our clients monthly on a fixed schedule.

For managed services contracts, the total contract consideration is typically a fixed fee, but these contracts may also have variable fee components. Unless managed services are included with a software license contract (as discussed further below), there is generally only one performance obligation and revenue is recognized for these arrangements on a ratable basis as the services are performed.

Fees related to set-up or implementation activities for both cloud-based solution and managed services contracts are deferred and recognized ratably over the related service period to which the activities relate.

Due to the significance of variable consideration, number of products/services, complex pricing structures and long-term nature of these types of contracts, the judgments and estimates made in this area could have a significant effect on the amount and timing of revenues recognized in any period.

Prior to the adoption of ASC 606, we recognized revenue related to our cloud and related solutions contracts on a monthly basis as we provided the services. The adoption of ASC 606 did not result in any significant changes to the timing of revenue recognition related to these contracts.

Software and Services

Our software and services revenue relates primarily to: (i) software license sales on either a perpetual or term license basis; and (ii) professional services to implement the software. Our software and services contracts are often contracted in bundled arrangements that include not only the software license and related implementation services, but can also include maintenance, managed services and/or additional professional services.

For our software arrangements, the total contract consideration is allocated between the separate performance obligations based on stand-alone selling prices for software licenses, cost plus applicable margin for services and established pricing for maintenance. The initial sale of software products generally requires significant production, modification or customization, such that the delivery of the software license and the related professional services required to implement the software represent one combined performance obligation that is satisfied over time based on hours worked (hours-based method). We are using hours worked on the project as the measure to determine progress toward completion as we believe it is the most appropriate metric to measure such progress. The software and services fees are generally billed to our clients on a milestone or date basis.

The determination of the performance obligations and allocation of value for software license arrangements require significant judgement. We generally determine stand-alone selling prices using pricing calculations (which include regional market factors) for our software license fees and maintenance, and cost-plus margins for services. Additionally, our use of an hours-based method of accounting for software license and other professional services performance obligations that are satisfied over time requires estimates of total project revenues and costs, along with the expected hours necessary to complete a project. Changes in estimates as a result of additional information or experience on a project as work progresses are inherent characteristics of this method of revenue recognition as we are exposed to various business risks in completing these types of performance obligations. The estimation process to support our hours-based recognition method is more difficult for projects of greater length and/or complexity. The judgments and estimates made in this area could: (i) have a significant effect on revenues recognized in any period by changing the amount and/or the timing of the revenue recognized; and/or (ii) impact the expected profitability of a project, including whether an overall loss on an arrangement has occurred. To mitigate the inherent risks in using this hours-based method, we track our performance on projects and reevaluate the appropriateness of our estimates as part of our monthly accounting cycle.

In certain instances, we sell software license volume upgrades, which provide our clients the right to use our software to process higher transaction volume levels. In these instances, we analyze the contract to determine if the volume upgrade is a separate performance obligation and if so, we recognize the value associated with the software license as revenue on the effective date of the volume upgrade.

A portion of our professional services revenues are contracted separately (e.g., business consulting services, etc.). Such contracts can either be on a fixed-price or time-and-materials basis. Revenues from fixed-price, professional service contracts are recognized using an hours-based method, as these professional services represent a performance obligation that is satisfied over time. Revenues from professional services contracts billed on a time-and-materials basis are recognized as the services are performed.

Prior to the adoption of ASC 606, we recognized revenue for our software arrangements under the guidelines of contract accounting as our software products required significant production, modification or customization and if we had VSOE of fair value for undelivered elements (e.g., maintenance), which we generally had, we would allocate a portion of the total arrangement fee to the undelivered element based on its VSOE of fair value, and the balance of the arrangement fee was recognized using the percentage-of-completion (“POC”) method of accounting.

Maintenance

Our maintenance revenue relates primarily to support of our software once it has been implemented. Maintenance revenues are recognized ratably over the software maintenance period as services are provided. Our maintenance consists primarily of client and product support, technical updates (e.g., bug fixes, etc.), and unspecified upgrades or enhancements to our software products. If specified upgrades or enhancements are offered in a contract, which is rare, they are accounted for as a separate performance obligation. Maintenance can be invoiced to our clients on a monthly, quarterly or annual basis.

Transaction Price Allocated to the Remaining Performance Obligations

As of June 30, 2018, our aggregate amount of the transaction price allocated to the remaining performance obligations is approximately \$491 million, 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 approximately 80% of this amount by the end of 2020, with the remaining amount recognized by the end of 2028. We have excluded from this amount variable consideration expected to be recognized in the future related to performance obligations that are unsatisfied (a practical expedient allowed under ASC 606). The majority of our future revenue is related to our cloud and related solution client contracts that include variable consideration dependent upon a series of monthly volumes and/or daily usage of services and have contractual terms ending from 2019 through 2028.

We have not disclosed transaction price allocation to remaining performance obligations or an explanation thereof of comparable amounts as of December 31, 2017 (a transitional practical expedient allowed under ASC 606).

Disaggregation of Revenue

In the following table, revenue is disaggregated by geographic region (using the location of the client as the basis of attributing revenues to the individual regions):

	Quarter Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Americas (principally the U.S.)	\$ 180,217	\$ 162,835	\$ 350,120	\$ 327,972
Europe, Middle East, and Africa	21,977	17,817	42,411	35,031
Asia Pacific	10,839	12,061	22,206	22,180
Total revenues	<u>\$ 213,033</u>	<u>\$ 192,713</u>	<u>\$ 414,737</u>	<u>\$ 385,183</u>

Billed and Unbilled Accounts Receivable. Billed accounts receivable represents our unconditional rights to consideration. Once invoiced, our payment terms are generally between 30-60 days, and rarely do we have contracts with financing arrangements. Unbilled accounts receivable represents our rights to consideration for work completed but not billed. Unbilled accounts receivable is transferred to billed accounts receivable when the rights become unconditional which is generally at the time of invoicing.

The following table rolls forward our unbilled accounts receivable from December 31, 2017 to June 30, 2018 (in thousands):

	Unbilled Receivables
Beginning Balance, December 31, 2017	\$ 31,187
Cumulative effect adjustments	4,193
Reclassification - Adoption of ASC 606	(2,276)
Beginning Balance, January 1, 2018	\$ 33,104
Recognized during the period	111,549
Reclassified to receivables	(104,913)
Other	(908)
Ending Balance, June 30, 2018	<u>\$ 38,832</u>

Deferred Revenue. Deferred revenue represents consideration received from clients in advance of services being performed.

The following table rolls forward our deferred revenue from December 31, 2017 to June 30, 2018 (in thousands):

	Deferred Revenue	
Beginning Balance, December 31, 2017	\$	(54,231)
Cumulative effect adjustments		4,344
Reclassification - Adoption of ASC 606		2,276
Beginning Balance, January 1, 2018	\$	(47,611)
Revenue recognized that was included in deferred revenue at the beginning of the period		29,546
Consideration received in advance of services performed net of revenue recognized in the current period		(31,747)
Other		1,180
Ending Balance, June 30, 2018	\$	(48,632)

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 June 30, 2018 and December 31, 2017, our cash equivalents consist primarily of institutional money market funds, commercial paper, and time deposits held at major banks.

As of June 30, 2018 and December 31, 2017, we had \$2.0 million and \$4.2 million, respectively, of restricted cash that serves to collateralize outstanding letters of credit. This restricted cash is included in cash and cash equivalents in our Condensed Consolidated Balance Sheets (“Balance Sheets” or “Balance Sheet”).

Short-term Investments and Other Financial Instruments . Our financial instruments as of June 30, 2018 and December 31, 2017 include cash and cash equivalents, short-term investments, accounts receivable, accounts payable, and debt. Because of their short maturities, the carrying amounts of cash equivalents, 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.

Primarily all short-term investments held by us as of June 30, 2018 and December 31, 2017 have contractual maturities of less than two years from the time of acquisition. Our short-term investments as of June 30, 2018 and December 31, 2017 consisted almost entirely of fixed income securities. Proceeds from the sale/maturity of short-term investments for the six months ended June 30, 2018 and 2017 were \$116.9 million and \$104.3 million, respectively.

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 and liabilities measured at fair value (in thousands):

	June 30, 2018			December 31, 2017		
	Level 1	Level 2	Total	Level 1	Level 2	Total
Assets:						
Cash equivalents:						
Money market funds	\$ 7,450	\$ —	\$ 7,450	\$ 3,544	\$ —	\$ 3,544
Commercial paper	—	22,085	22,085	—	32,467	32,467
Short-term investments:						
Corporate debt securities	—	53,345	53,345	—	124,182	124,182
U.S. government agency bonds	—	1,542	1,542	—	1,547	1,547
Asset-backed securities	—	11,806	11,806	—	13,388	13,388
Total	\$ 7,450	\$ 88,778	\$ 96,228	\$ 3,544	\$ 171,584	\$ 175,128

Valuation inputs used to measure the fair values of our money market funds and corporate equity securities 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 measure our debt at fair value, with changes recognized in earnings each reporting period. The following table indicates the carrying value (par value for convertible debt) and estimated fair value of our debt as of the indicated periods (in thousands):

	June 30, 2018		December 31, 2017	
	Carrying Value	Fair Value	Carrying Value	Fair Value
2015 Credit Agreement (carrying value including current maturities)	\$ —	\$ —	\$ 120,000	\$ 120,000
2018 Credit Agreement (carrying value including current maturities)	148,125	148,125	—	—
2016 Convertible debt (par value)	230,000	242,363	230,000	251,850

The fair value for our credit agreement was estimated using a discounted cash flow methodology, while the fair value for our convertible debt was estimated based upon quoted market prices or recent sales activity, both of which are considered Level 2 inputs. See Note 4 for additional discussion regarding an amendment to our Credit Agreement.

Other Accounting Pronouncements Adopted. In October 2016, the FASB issued ASU 2016-16, *Income Taxes (Topic 740) Intra-Entity Transfers of Assets Other Than Inventory*. This ASU requires entities to recognize at the transaction date the income tax consequences of intercompany asset transfers. This ASU is effective in annual and interim periods in fiscal years beginning after December 15, 2017, with early adoption permitted, and requires a modified retrospective transition method. We adopted this ASU in January 2018 and the adoption of this standard did not have a material impact on our Financial Statements.

Accounting Pronouncement Issued But Not Yet Effective. In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. This ASU requires lessees to recognize a lease liability and a right-to-use asset for all leases, including operating leases, with a term greater than twelve months on its balance sheet. This ASU is effective in annual and interim periods in fiscal years beginning after December 15, 2018, with early adoption permitted. An entity may choose to adopt this ASU either retrospectively or prospectively as of the start of the first period for which it applies the standard. We are currently in the process of evaluating the impact this ASU will have on our Financial Statements. Based on our initial evaluations, we believe the adoption of this standard will have a material impact on our consolidated balance sheet.

3. LONG-LIVED ASSETS

Goodwill. The changes in the carrying amount of goodwill for the six months ended June 30, 2018, were as follows (in thousands):

January 1, 2018 balance	\$ 210,080
Business Ink acquisition	3,561
Effects of changes in foreign currency exchange rates	(3,036)
June 30, 2018 balance	<u>\$ 210,605</u>

See Note 5 for discussion regarding the Business Ink acquisition.

Other Intangible Assets. As part of the adoption of ASC 606, at January 1, 2018, we reclassified our investment in client contracts and capitalized costs related to conversion/set-up activities from “client contracts” to “client contract costs” on our Balance Sheet. As of June 30, 2018, our intangible assets subject to ongoing amortization consist of acquired client contracts and software. As of June 30, 2018 and December 31, 2017, the carrying values of our other intangible assets were as follows (in thousands):

	June 30, 2018			December 31, 2017		
	Gross Carrying Amount	Accumulated Amortization	Net Amount	Gross Carrying Amount	Accumulated Amortization	Net Amount
Investments in client contracts	\$ -	\$ -	\$ -	\$ 26,616	\$ (9,782)	\$ 16,834
Capitalized costs	-	-	-	26,811	(10,039)	16,772
Acquired client contracts	120,971	(79,398)	41,573	87,308	(77,288)	10,020
Total client contracts	120,971	(79,398)	41,573	140,735	(97,109)	43,626
Software	144,936	(114,010)	30,926	135,892	(108,986)	26,906
Total intangible assets	<u>\$ 265,907</u>	<u>\$ (193,408)</u>	<u>\$ 72,499</u>	<u>\$ 276,627</u>	<u>\$ (206,095)</u>	<u>\$ 70,532</u>

Other intangible assets as of June 30, 2018 include assets acquired in the Business Ink business acquisition (see Note 5).

The total amortization expense related to other intangible assets for the second quarters of 2018 and 2017 were \$4.8 million and \$6.4 million, respectively, and for the six months ended June 30, 2018 and 2017 were \$8.8 million and \$13.3 million, respectively. Based on the June 30, 2018 net carrying value of our other intangible assets, the estimated total amortization expense for each of the five succeeding fiscal years ending December 31 are: 2018 – \$18.2 million; 2019 – \$15.3 million; 2020 – \$12.0 million; 2021 – \$8.0 million; and 2022 – \$6.0 million.

Client Contract Costs . As of June 30, 2018, the carrying values of our contract cost assets, related to those contracts with a contractual term greater than one year, were as follows (in thousands):

	June 30, 2018		
	Gross Carrying Amount	Accumulated Amortization	Net Amount
Client contract incentives (1)	\$ 26,766	\$ (15,272)	\$ 11,494
Capitalized costs (2)	33,619	(14,744)	18,875
Capitalized commission fees (3)	6,074	(916)	5,158
Total client contract costs	<u>\$ 66,459</u>	<u>\$ (30,932)</u>	<u>\$ 35,527</u>

The aggregate amortization related to our client contract costs include in our operations for the quarter and six months ended June 30, 2018 was as follows (in thousands):

	Quarter Ended June 30, 2018	Six Months Ended June 30, 2018
Client contract incentives (1)	\$ 2,764	\$ 5,491
Capitalized costs (2)	2,442	4,837
Capitalized commission fees (3)	579	935
Total client contract costs	<u>\$ 5,785</u>	<u>\$ 11,263</u>

- (1) Client contract incentives consist principally of incentives provided to new or existing clients to convert their customer accounts to, or retain their customer's account on, our outsourced solutions and are amortized ratably over the contract period to include renewal periods if applicable, which as of June 30, 2018, have termination dates that range from 2019 to 2025. The amortization of client contract incentives is reflected as a reduction in cloud and related solutions revenue in our Income Statement.
- (2) Capitalized costs are related to client conversion/set-up activities and direct material costs to fulfill long-term cloud-based or managed services arrangements. These costs are amortized over the contract period based on the transfer of goods or services to which the assets relate, which as of June 30, 2018 range from 2019 to 2023, and are included in cost of cloud and related solutions in our Income Statement.
- (3) Capitalized commission fees are incremental commissions paid as a result of obtaining a customer contract. These fees are amortized over the contract period based on the transfer of goods or services to which the assets relate, which as of June 30, 2018, range from 2019 to 2021, and are included in selling, general and administrative expenses on our Income Statement. Incremental commission fees incurred as a result of obtaining a customer contract are expensed when incurred if the amortization period of the asset that we otherwise would have recognized is one year or less (a practical expedient allowed under ASC 606). These costs were not significant in the quarter and six months ended June 30, 2018 and are included in selling, general and administrative expenses.

4. DEBT

Our long-term debt, as of June 30, 2018 and December 31, 2017, was as follows (in thousands):

	June 30, 2018	December 31, 2017
<i>2015 Credit Agreement:</i>		
Term loan, due February 2020, interest at adjusted LIBOR plus 1.75% (combined rate of 3.44% at December 31, 2017)	\$ —	\$ 120,000
Less - deferred financing costs	—	(2,274)
2015 term loan, net of unamortized discounts	—	117,726
\$200 million revolving loan facility, due February 2020, interest at adjusted LIBOR plus applicable margin	—	—
<i>2018 Credit Agreement:</i>		
Term loan, due March 2023, interest at adjusted LIBOR plus 1.5% (combined rate of 3.83% at June 30, 2018)	148,125	—
Less - deferred financing costs	(2,567)	—
2018 term loan, net of unamortized discounts	145,558	—
\$200 million revolving loan facility, due March 2023, interest at adjusted LIBOR plus applicable margin	—	—
<i>Convertible Notes:</i>		
2016 Convertible Notes – Senior convertible notes; due March 15, 2036; cash interest at 4.25%	230,000	230,000
Less – unamortized original issue discount	(10,174)	(11,487)
Less – deferred financing costs	(3,980)	(4,503)
2016 Convertible Notes, net of unamortized discounts	215,846	214,010
Total debt, net of unamortized discounts	361,404	331,736
Current portion of long-term debt, net of unamortized discounts	(7,500)	(22,500)
Long-term debt, net of unamortized discounts	<u>\$ 353,904</u>	<u>\$ 309,236</u>

Credit Agreement

2018 Credit Agreement. On March 5, 2018, we entered into a new \$350 million credit agreement (the “2018 Credit Agreement”) with a consortium of banks to replace the 2015 Credit Agreement.

The 2018 Credit Agreement provides borrowings in the form of: (i) a \$150 million aggregate principal five-year term loan (the “2018 Term Loan”); and (ii) a \$200 million aggregate principal five-year revolving loan facility (the “2018 Revolver”). With the \$150 million proceeds from the 2018 Term Loan, we repaid the outstanding \$120 million balance of the term loan under the 2015 Credit Agreement, resulting in a net increase of available cash by \$30 million, a portion of which was used to pay certain fees and expenses in connection with the refinancing, and the remainder of which will be used for general corporate purposes.

The interest rates under the 2018 Credit Agreement are based upon our choice of an adjusted LIBOR rate plus an applicable margin of 1.50% - 2.50%, or an alternate base rate plus an applicable margin of 0.50% - 1.50%, with the applicable margin, depending on our then-net secured total leverage ratio. We will pay a commitment fee of 0.200% - 0.375% of the average daily unused amount of the 2018 Revolver, with the commitment fee rate also dependent upon our then-net secured total leverage ratio. The 2018 Credit Agreement includes mandatory repayments of the aggregate principal amount of the 2018 Term Loan (payable quarterly) for the first, second, third, fourth, and fifth years, with the remaining principal balance due at maturity. The 2018 Credit Agreement has no prepayment penalties and requires mandatory repayments under certain circumstances, including: (i) asset sales or casualty proceeds; and (ii) proceeds of debt or preferred stock issuances.

The 2018 Credit Agreement contains customary affirmative covenants. In addition, the 2018 Credit Agreement has customary negative covenants that places limits on our ability to: (i) incur additional indebtedness; (ii) create liens on its property; (iii) make investments; (iv) enter into mergers and consolidations; (v) sell assets; (vi) declare dividends or repurchase shares; (vii) engage in certain transactions with affiliates; and (viii) prepay certain indebtedness; and (ix) issue capital stock of subsidiaries. We must also meet certain financial covenants to include: (i) a maximum total leverage ratio; (ii) a maximum first-lien leverage ratio; and (iii) a minimum interest coverage ratio. In conjunction with the 2018 Credit Agreement, we entered into a security agreement in favor of Bank of America N.A., as collateral agent (the “Security Agreement”). Under the Security Agreement and 2018 Credit Agreement, certain of our domestic subsidiaries have guaranteed our obligations, and have pledged substantially all of our assets to secure the obligations under the 2018 Credit Agreement and such guarantees.

During the six months ended June 30, 2018, we made \$1.9 million of principal repayments on our 2018 Credit Agreement. As of June 30, 2018, our interest rate on the 2018 Term Loan is 3.83% (adjusted LIBOR plus 1.50% per annum), effective through September 28, 2018, and our commitment fee on the 2018 Revolver is 0.20%. As of June 30, 2018, we had no borrowing outstanding on our 2018 Revolver and had the entire \$200.0 million available to us.

In conjunction with the closing of the 2018 Credit Agreement, we incurred financing costs of \$1.5 million. When combined with the remaining deferred financing costs of the 2015 Credit Agreement, financing costs of \$2.8 million have been deferred and are being amortized to interest expense using the effective interest method over the related term of the 2018 Credit Agreement. Additionally, as certain lenders from the 2015 Credit Agreement chose not to participate in the 2018 Credit Agreement syndication group, we wrote-off \$0.8 million of unamortized debt issuance costs and recognized a loss on extinguishment of that debt.

Convertible Notes

2016 Convertible Notes. Upon conversion of the 2016 Convertible Notes, we will settle our conversion obligation by paying or delivering, as the case may be, cash, shares of our common stock, or a combination thereof, at our election. It is our current intent and policy to settle our conversion obligations as follows: (i) pay cash for 100% of the par value of the 2016 Convertible Notes that are converted; and (ii) to the extent the value of our conversion obligation exceeds the par value, we can satisfy the remaining conversion obligation in our common stock, cash or a combination thereof.

The 2016 Convertible Notes will be convertible at the option of the note holders upon the satisfaction of specified conditions and during certain periods. During the period from, and including, December 15, 2021 to the close of business on the business day immediately preceding March 15, 2022 and on or after December 15, 2035, holders may convert all or any portion of their 2016 Convertible Notes at the conversion rate then in effect at any time regardless of these conditions.

As a result of us increasing our quarterly dividend in June 2018 (see Note 10), the previous conversion rate for the 2016 Convertible Notes of 17.4951 shares of our common stock per \$1,000 principal amount of the 2016 Convertible Notes, which is equivalent to an initial conversion price of approximately \$57.16 per share of our common stock, has been adjusted to 17.5057 shares of our common stock per \$1,000 principal amount of the 2016 Convertible Notes, which is equivalent to an initial conversion price of approximately \$57.12 per share of our common stock.

Holders may require us to repurchase the 2016 Convertible Notes for cash on each of March 15, 2022, March 15, 2026, and March 15, 2031, or upon the occurrence of a fundamental change (as defined in the 2016 Convertible Notes Indenture) in each case at a purchase price equal to the principal amount thereof plus accrued and unpaid interest.

We may not redeem the 2016 Convertible Notes prior to March 20, 2020. On or after March 20, 2020, we may redeem for cash all or part of the 2016 Convertible Notes if the last reported sale 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. On or after March 15, 2022, we may redeem for cash all or part of the 2016 Convertible Notes regardless of the sales price condition described in the preceding sentence. In each case, the redemption price will equal the principal amount of the 2016 Convertible Notes to be redeemed, plus accrued and unpaid interest.

As of June 30, 2018, none of the conversion features have been achieved, and thus, the 2016 Convertible Notes are not convertible by the holders.

5. BUSINESS INK ACQUISITION

On February 28, 2018, we acquired Business Ink for approximately \$70 million in cash. Business Ink is a company based in Austin, Texas, with facilities in multiple locations. Business Ink provides outsourced, customized business communications services to the telecommunications, healthcare, financial services, utilities and government sectors across statements, email, mobile messaging and more. The acquisition extends the scale of our operations and platform capabilities, expands our customer base into new verticals, and further solidifies our customer communications footprint.

The following table summarizes the preliminary estimated fair values of the assets acquired and liabilities assumed at the date of acquisition (in thousands):

Current assets	\$	25,479
Fixed assets		13,337
Acquired client contracts		35,150
Acquired software		4,132
Goodwill		3,561
Non-current assets		148
Total assets acquired		81,807
Current liabilities		(11,586)
Non-current liabilities		(256)
Total liabilities assumed		(11,842)
Net assets acquired	\$	69,965

The above estimated fair values of assets acquired and liabilities assumed are considered provisional and are based on the information that was available as of the date of the Business Ink acquisition to estimate the fair value of assets acquired and liabilities assumed. We believe that information provides a reasonable basis for estimating the fair values of assets acquired and liabilities assumed, but we are waiting for additional information necessary to finalize those fair values. Thus, the provisional measurements of fair value set forth above are subject to change. Such changes are not expected to be significant. During the second quarter of 2018, we made certain adjustments, primarily to increase the value of the acquired client contracts by \$4.3 million. As a result of these adjustments, the amount allocated to goodwill decreased by \$4.5 million. We expect to finalize the valuation and complete the purchase price allocation as soon as practicable, but not later than one year from the acquisition date.

The Business Ink goodwill has been assigned to our one reportable segment. The estimated lives assigned to the acquired client contracts and the acquired software assets range from approximately four months to fifteen years (weighted-average life of thirteen years), and four years, respectively. Amortization expense related to these acquired intangible assets is recognized based upon the pattern in which the economic benefits of the acquired intangible assets are expected to be received. The Business Ink goodwill and acquired intangible assets are deductible for income tax purposes.

The results of operations of Business Ink are included in the accompanying Condensed Consolidated Statements of Income for the period subsequent to the acquisition date. Pro forma information on our historical results of operations to reflect the acquisition of Business Ink is not presented as Business Ink's results of operations during prior periods are not significant to our results of operations.

6. RESTRUCTURING AND REORGANIZATION CHARGES

During the second quarters of 2018 and 2017, we recorded restructuring and reorganization charges of \$3.3 million and \$2.7 million, respectively, and for the six months ended June 30, 2018 and 2017, we recorded restructuring and reorganization charges of \$4.2 million and \$3.0 million, respectively.

Our restructuring activities during the six months ended June 30, 2018 were primarily made up of the following:

- We reduced our workforce by approximately 40 employees as a result of organizational changes made to pursue global opportunities and efficiencies. As a result, we incurred restructuring charges related to involuntary terminations of \$1.8 million.
- We are in the process of closing one of our print facilities. As a result, we incurred restructuring charges related to involuntary terminations and the impairment of assets of \$1.4 million.

The activity in the business restructuring and reorganization reserves during the six months ended June 30, 2018 was as follows:

	Termination Benefits	Facilities Abandonment	Other	Total
January 1, 2018 balance	\$ 1,116	\$ 3,032	\$ —	\$ 4,148
Charged to expense during period	2,159	959	1,111	4,229
Cash payments	(2,061)	(1,168)	—	(3,229)
Adjustment for asset impairment	—	—	(1,001)	(1,001)
Other	(71)	16	(110)	(165)
June 30, 2018 balance	<u>\$ 1,143</u>	<u>\$ 2,839</u>	<u>\$ —</u>	<u>\$ 3,982</u>

7. INCOME TAXES

The effective income tax rates for the second quarters and six months ended June 30, 2018 and 2017 were as follows:

Quarter Ended June 30,		Six Months Ended June 30,	
2018	2017	2018	2017
27%	43%	29%	25%

The effective income tax rate for the quarter and six months ended June 30, 2018 reflects the impact of the U.S. Tax Cut and Jobs Act (the “Tax Reform Act”) that was passed into legislation in December 2017. The Tax Reform Act reduces the U.S. maximum rate of income taxation from 35% to 21% applicable to taxable years beginning after December 31, 2017. As a result, for the full-year 2018 we are currently estimating an effective income tax rate of approximately 29%.

The lower effective income tax rate for the six months ended June 30, 2017 reflects an approximately \$5 million net benefit resulting from Comcast Corporation’s (“Comcast”) exercise of 1.4 million vested stock warrants in January 2017, as the stock warrants appreciated in value since their vesting, resulting in an income tax benefit to us when exercised.

8. COMMITMENTS, GUARANTEES AND CONTINGENCIES

Warranties. We generally warrant that our solutions and related offerings will conform to published specifications, or to specifications provided in an individual client 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 limited warranty for the duration of the services provided. We generally warrant that services will be performed in a professional and workmanlike 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 client 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.

Product and Services Indemnifications. Our arrangements with our clients generally include an indemnification provision that will indemnify and defend a client in actions brought against the client 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 clients typically cap our liability for breach to a specified amount of the direct damages incurred by the client 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 outsourced customer care and billing solutions, provisions for damages related to service level performance requirements. The service level performance requirements typically relate to system availability and timeliness of service delivery. Historically, we have not incurred significant costs associated with service level performance within our client contracts, and as a result, do not include estimates for potential credits or refunds related to service level performance in our contract consideration at the onset of the contract, but instead, account for credits or refunds as an adjustment to the transaction price of the contract as those events occur.

Indemnifications Related to Officers and the Board of Directors. We have agreed to indemnify members of our Board of Directors (the “Board”) and certain of our officers if they are named or threatened to be named as a party to any proceeding by reason of the fact that they acted in such capacity. 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. As a result, we have not recorded any liabilities related to such indemnifications as of June 30, 2018. 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. We are not presently a party to any material pending or threatened legal proceedings.

9. EARNINGS PER COMMON SHARE

Basic and diluted earnings per common share (“EPS”) amounts are presented on the face of the accompanying Income Statements.

No reconciliation of the basic and diluted EPS numerators is necessary as net income is used as the numerators for all periods presented. The reconciliation of the basic and diluted EPS denominators related to the common shares is included in the following table (in thousands):

	Quarter Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Basic weighted-average common shares	32,589	32,572	32,558	32,294
Dilutive effect of restricted common stock	156	424	274	501
Dilutive effect of Stock Warrants	163	—	173	—
Diluted weighted-average common shares	32,908	32,996	33,005	32,795

The Convertible Notes have a dilutive effect only in those quarterly periods in which our average stock price exceeds the current effective conversion price (see Note 4).

The Stock Warrants have a dilutive effect only in those quarterly periods in which our average stock price exceeds the exercise price of \$26.68 per warrant (under the treasury stock method), and are not subject to performance vesting conditions (see Note 10).

Potentially dilutive common shares related to non-participating unvested restricted stock excluded from the computation of diluted EPS, as the effect was antidilutive, were not material in any period presented.

10. STOCKHOLDERS’ EQUITY AND EQUITY COMPENSATION PLANS

Stock Repurchase Program. We currently have a stock repurchase program, approved by our Board, authorizing us to repurchase our common stock from time-to-time as market and business conditions warrant (the “Stock Repurchase Program”). During the six months ended June 30, 2018 and 2017 we repurchased 0.3 million shares of our common stock for \$11.3 million (weighted-average price of \$44.25 per share) and 0.3 million shares of our common stock for \$10.5 million (weighted-average price of \$41.00 per share), respectively, under a SEC Rule 10b5-1 Plan.

As of June 30, 2018, the total remaining number of shares available for repurchase under the Stock Repurchase Program totaled 6.0 million shares.

Stock Repurchases for Tax Withholdings. In addition to the above-mentioned stock repurchases, during the six months ended June 30, 2018 and 2017, we repurchased and then cancelled 0.1 million shares of common stock for \$7.0 million and 0.2 million shares of common stock for \$6.3 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 May 2018, our stockholders approved an increase of 2.7 million shares authorized for issuance under the 2005 Stock Incentive Plan, from 18.7 million shares to 21.4 million shares.

Cash Dividends. During the second quarter of 2018, the Board approved a quarterly cash dividend of \$0.21 per share of common stock, totaling \$7.1 million. During the second quarter of 2017, the Board approved a quarterly cash dividend of \$0.1975 per share of common stock, totaling \$6.7 million. Dividends declared for the six months ended June 30, 2018 and 2017 totaled \$14.2 million and \$13.4 million, respectively.

Warrants . In 2014, in conjunction with the execution of an amendment to our current agreement with Comcast, we issued stock warrants (the “Warrant Agreement”) for the right to purchase up to approximately 2.9 million shares of our common stock (the “Stock Warrants”) as an additional incentive for Comcast to convert customer accounts onto our Advanced Convergent Platform based on various milestones. The Stock Warrants have a 10-year term and an exercise price of \$26.68 per warrant.

Upon vesting, the Stock Warrants are recorded as a client contract incentive asset with the corresponding offset to stockholders’ equity. The client contract incentive asset related to the Stock Warrants is amortized as a reduction in cloud and related solutions revenues over the remaining term of the Comcast amended agreement. As of June 30, 2018 and December 31, 2017, we recorded a client contract incentive asset related to these Stock Warrants of \$25.1 million as of both periods and have recorded accumulated amortization related to these Stock Warrants of \$14.5 million and \$9.2 million, respectively. The remaining unvested Stock Warrants will be accounted for as client contract incentive assets in the period the performance conditions necessary for vesting have been met.

As of June 30, 2018, approximately 1.4 million Stock Warrants remain issued, of which 0.4 million were vested.

Stock-Based Awards. A summary of our unvested restricted common stock activity during the quarter and six months ended June 30, 2018 is as follows (shares in thousands):

	Quarter Ended June 30, 2018		Six Months Ended June 30, 2018	
	Shares	Weighted-Average Grant Date Fair Value	Shares	Weighted-Average Grant Date Fair Value
Unvested awards, beginning	1,216	\$ 41.48	1,222	\$ 36.84
Awards granted	39	43.80	489	46.75
Awards forfeited/cancelled	(21)	42.35	(79)	40.18
Awards vested	(45)	38.49	(443)	34.25
Unvested awards, ending	1,189	\$ 41.67	1,189	\$ 41.67

Included in the awards granted during 2018 are performance-based awards for 0.1 million restricted common stock shares issued to members of executive management and certain key employees, which vest in the first quarter of 2020 upon meeting certain pre-established financial performance objectives related to 2019 performance. The performance-based 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 six months ended June 30, 2018 are primarily time-based awards, which vest annually over four 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, and the subsequent involuntary termination of employment.

We recorded stock-based compensation expense for the second quarters of 2018 and 2017 of \$5.6 million and \$6.0 million, respectively, and for the six months ended June 30, 2018 and 2017 of \$10.2 million and \$11.6 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 2017 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 II Item 1A. Risk Factors of this report and in Part I Item 1A. Risk Factors of our 2017 10-K. Readers are strongly encouraged to review those sections closely in conjunction with MD&A.

Company Overview

We are one of the world's largest and most established business support solutions ("BSS") providers, primarily serving some of the most well-known communications, information, and content companies around the globe. We help our clients simplify the complexity of a rapidly changing business landscape, bringing more than thirty-five years of experience supporting the world's most respected service providers. We make their hardest decisions simpler and smarter as they work to evolve their businesses from a single-product offering to highly complex and competitive multi-product offerings, while also requiring increasingly differentiated, real-time, and personalized experiences for their customers.

We offer BSS and revenue management, customer experience and digital monetization solutions for every stage of the customer lifecycle so service providers can deliver an outstanding customer experience that adapts to their customers' rapidly changing demands. Our solutions are built on proven public and private cloud platforms, with out-of-the-box and managed service models that adapt to fit their unique business needs and enable the transformative change required to create personalized experiences that drive loyalty and retention.

Over the years, we have focused 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 service providers. Our scalable, modular, and flexible solutions combined with our domain expertise and our ability to effectively migrate clients to our solutions, provide the industry with proven solutions to improve their profitability and consumers' experiences. We have specifically architected our solutions to offer service providers a phased, incremental approach to transforming their businesses, thereby reducing the business interruption risk associated with this evolution.

We generate approximately 70% of our revenues from the North American cable and satellite markets, approximately 20% of our revenues from global wireline and wireless communication providers, and the remainder from a variety of other verticals, such as financial services, logistics, and transportation. Additionally, during the six months ended June 30, 2018 we generated approximately 85% of our revenues from the Americas region, approximately 10% of our revenues from the Europe, Middle East and Africa region, and approximately 5% of our revenues from the Asia Pacific region.

We are a S&P Small Cap 600 company.

Key Impact of U.S. Tax Cuts and Jobs Act

On December 22, 2017, the U.S. Tax Cuts and Jobs Act (the "Tax Reform Act") was passed into legislation. The Tax Reform Act amends the Internal Revenue Code, reducing the corporate income tax rate, changing or eliminating certain income tax deductions and credits and provides sweeping change to how U.S. companies are taxed on their international operations. The Tax Reform Act is generally effective for tax years beginning after December 31, 2017; however, certain provisions of the Tax Reform Act have effective dates beginning in 2017.

The Tax Reform Act reduces the U.S. maximum rate of income taxation from 35% to 21% applicable to taxable years beginning January 1, 2018. We currently expect our GAAP effective income tax rates for the full year 2018 to be approximately 29%.

See Note 7 to our 2017 10-K for additional impacts of the Tax Reform Act.

Impact of New Revenue Accounting Pronouncement

As discussed in Note 2 to our Financial Statements, in January 2018 we adopted ASU 606, a single comprehensive model which supersedes nearly all existing revenue recognition guidance under U.S. GAAP, utilizing the cumulative effect approach. Under the new guidance, revenue is recognized when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for those goods or services.

In conjunction with the adoption of this ASU, we recorded a cumulative adjustment increasing beginning retained earnings (net of tax) by approximately \$7 million, primarily related to contracts that we were required to defer revenue as we did not have VSOE for certain undelivered elements. We do not anticipate ASU 606 will have a material impact on our revenues in 2018 and beyond, as the new revenue accounting rules under ASU 606 are fairly consistent with our current policies and guidelines based on the nature of our client contracts.

Since we adopted ASC 606 using the cumulative effect method, prior period comparative information in our Financial Statements have not been adjusted and continue to be as previously reported. As a result, beginning in 2018, the following key reclassifications have occurred:

- Certain deferred contract costs that had been included in our client contracts and other current and non-current assets on our Balance Sheet were reclassified and presented separately as a non-current client contract asset, net of related amortization.
- Certain revenues and related costs previously recorded as software and services or maintenance on our Income Statement are now being classified as cloud and related solutions.
- Investments in client contracts on our Consolidated Statement of Cash Flows have been reclassified to operating activities from investing activities.

Refer to Note 2 for further detail and discussion regarding the adoption of ASU 606.

Acquisition of Business Ink

As discussed in Note 5 to the Financial Statements, on February 28, 2017 we acquired Business Ink, a multi-channel communications company based in Austin, Texas, for approximately \$70 million, excluding acquisition-related expenses. This represents a purchase price of slightly over one times historical revenues. For the second quarter and six months ended June 30, 2018, Business Ink contributed cloud and related solutions revenues of \$15.7 million and \$21.0 million, respectively, of and was slightly dilutive to our results of operations when factoring in acquired amortization expense.

Management Overview of Quarterly Results

Second Quarter Highlights. A summary of our results of operations for the second quarter of 2018, when compared to the second quarter of 2017, is as follows (in thousands, except per share amounts and percentages):

	Quarter Ended	
	June 30, 2018	June 30, 2017
Revenues	\$ 213,033	\$ 192,713
Operating Results:		
Operating income	24,087	24,248
Operating income margin	11.3%	12.6%
Diluted EPS	\$ 0.46	\$ 0.35
Supplemental Data:		
Restructuring and reorganization charges	\$ 3,329	\$ 2,731
Acquisition-related costs	3	-
Stock-based compensation (1)	5,663	5,974
Amortization of acquired intangible assets	2,496	1,734
Amortization of OID	661	625

- (1) Stock-based compensation included in the table above excludes amounts that have been recorded in restructuring and reorganization charges.

Revenues. Our revenues for the second quarter of 2018 were \$213.0 million, an 11% increase when compared to revenues of \$192.7 million for the second quarter of 2017. The year-over-year increase in revenues can be mainly attributed to the following: (i) \$15.7 million of revenues generated from Business Ink, discussed above; and (ii) continued growth in our cloud solutions and managed services offerings.

Operating Results. Operating income for the second quarter of 2018 was \$24.1 million, or an 11.3% operating income margin percentage, compared to \$24.2 million, or a 12.6% operating income margin percentage for the second quarter of 2017, with the decrease in operating margin reflective of costs associated with the integration of Business Ink and the continued increase in planned investments aimed at generating future long-term growth in our business.

Diluted EPS. Diluted EPS for the second quarter of 2018 was \$0.46 compared to \$0.35 for the second quarter of 2017, with the increase mainly attributed a lower effective income tax rate, primarily resulting from the U.S. Tax Reform enacted in December 2017.

Cash and Cash Flows. As of June 30, 2018, we had cash, cash equivalents and short-term investments of \$186.4 million, as compared to \$222.1 million as of March 31, 2018 and \$261.4 million as of as of December 31, 2017. Our cash flows from operating activities for the quarter ended June 30, 2018 were \$(3.6) million, which were negatively impacted by an increase in accounts receivable primarily related to the timing around a recurring client payment that was delayed at quarter-end. See the Liquidity section below for further discussion of our cash flows.

Significant Client Relationships

Client Concentration. A large percentage of our historical revenues have been generated from our largest clients, which are Comcast, Charter Corporation Inc. (“Charter”), and DISH Network Corporation (“DISH”).

Revenues from these clients for the indicated periods were as follows (in thousands, except percentages):

	Quarter Ended					
	June 30, 2018		March 31, 2018		June 30, 2017	
	Amount	% of Revenues	Amount	% of Revenues	Amount	% of Revenues
Comcast	\$ 53,913	25%	\$ 55,879	28%	\$ 52,029	27%
Charter	45,183	21%	43,126	21%	40,939	21%
DISH	20,505	10%	20,643	10%	22,022	11%

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

	As of		
	June 30, 2018	March 31, 2018	December 31, 2017
Comcast	24%	26%	26%
Charter	30%	22%	32%
DISH	7%	8%	8%

See our 2017 10-K for additional discussion of our business relationships and contractual terms with Comcast, Charter, and DISH.

Comcast Contract Renewal. Our current agreement with Comcast runs through June 30, 2019, with an option for Comcast to extend the agreement for two consecutive one-year terms by exercising the renewal options no later than January 1, 2019 for the first extension and January 1, 2020 for the second extension option. We are currently engaged in early discussions with Comcast regarding contract renewal terms. Although we believe our operating relationship with Comcast is good, there can be no assurances around the timing and/or the terms of any renewal arrangements at this time. The Comcast agreement and related amendments, with confidential information redacted, is included in the exhibits to our periodic filings with the SEC.

Risk of Client Concentration. We expect to continue to generate a significant percentage of our future revenues from our largest clients mentioned above. There are inherent risks whenever a large percentage of total revenues are concentrated with a limited number of clients. Should a significant client: (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 accounting principles generally accepted in the U.S. 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 2017 10-K.

Results of Operations

Total Revenues. Total revenues for the: (i) second quarter of 2018 were \$213.0 million, an 11% increase when compared to \$192.7 million for the second quarter of 2017; and (ii) six months ended June 30, 2018 were \$414.7 million, an 8% increase when compared to \$385.2 million for the six months ended June 30, 2017. These increases in revenues can be mainly attributed to the following: (i) revenues from the Business Ink acquisition discussed above; and (ii) continued growth in our cloud solutions and managed services arrangements.

The components of total revenues, discussed in more detail below, are as follows (in thousands):

	Quarter Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Revenues:				
Cloud and related solutions	\$ 187,401	\$ 157,879	\$ 364,917	\$ 316,656
Software and services	13,331	15,896	25,290	30,954
Maintenance	12,301	18,938	24,530	37,573
Total revenues	<u>\$ 213,033</u>	<u>\$ 192,713</u>	<u>\$ 414,737</u>	<u>\$ 385,183</u>

We use the location of the client as the basis of attributing revenues to individual countries. Revenues by geographic regions for the second quarters and six months ended June 30, 2018 and 2017 were as follows (in thousands):

	Quarter Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Americas (principally the U.S.)	\$ 180,217	\$ 162,835	\$ 350,120	\$ 327,972
Europe, Middle East, and Africa	21,977	17,817	42,411	35,031
Asia Pacific	10,839	12,061	22,206	22,180
Total revenues	<u>\$ 213,033</u>	<u>\$ 192,713</u>	<u>\$ 414,737</u>	<u>\$ 385,183</u>

Cloud and Related Solutions Revenues. Cloud and related solutions revenues for the: (i) second quarter of 2018 were \$187.4 million, a 19% increase when compared to \$157.9 million for the second quarter of 2017; and (ii) six months ended June 30, 2018 were \$364.9 million, a 15% increase when compared to \$316.7 million for the six months ended June 30, 2017. These increases in cloud and related solutions revenues for the quarter and six months ended June 30, 2018 are mainly due to: (i) the revenues generated from the acquired Business Ink business of \$15.7 million and \$21.0 million, respectively; (ii) the application of ASC 606, which resulted in revenues of \$6.1 million and \$13.1 million, respectively, previously classified as software and services and maintenance revenues, now being classified as cloud and related solutions revenues; and (iii) the execution of additional managed services arrangements, an increase in ancillary services revenues, and the conversion of 4.0 million customer accounts onto ACP during the last nine months of 2017.

Software and Services Revenues. Software and services revenues for the: (i) second quarter of 2018 were \$13.3 million, a 16% decrease when compared to \$15.9 million for the second quarter of 2017; and (ii) six months ended June 30, 2018 were \$25.3 million, an 18% decrease when compared to \$31.0 million for the six months ended June 30, 2017. The decreases in software and services revenues can be attributed mainly to the shift in our focus towards more recurring revenue arrangements, which are included in our cloud and related solutions revenues, and the application of ASC 606, which resulted in \$1.6 million and \$3.2 million, respectively, previously classified as software and services now being classified as cloud and related solutions.

Maintenance Revenues. Maintenance revenues for the: (i) second quarter of 2018 were \$12.3 million, a 35% decrease when compared to \$18.9 million for the second quarter of 2017; and (ii) six months ended June 30, 2018 were \$24.5 million, a 35% decrease when compared to \$37.6 million for the six months ended June 30, 2017. These decreases are primarily due to the application of ASC 606, which resulted in \$5.2 million and \$10.3 million, respectively, of revenue previously classified as maintenance now being classified as cloud and related solutions, with the remaining decrease attributed to the timing of maintenance renewals and related revenue recognition.

Total Expenses. Our operating expenses for the: (i) second quarter of 2018 were \$188.9 million, a 12% increase when compared to \$168.5 million for the second quarter of 2017; and (ii) six months ended June 30, 2018 were \$364.9 million, a 9% increase when compared to \$333.9 million for the six months ended June 30, 2017.

These increases can be mainly attributed to the operating expenses of Business Ink included in our results for the second quarter and six months ended June 30, 2018, to include acquisition amortization and the \$2.4 million of acquisition-related costs incurred in the first quarter of 2018, with the remaining increase reflective of our continued investment in the business.

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

Cost of Revenues. See our 2017 10-K for a description of the types of costs that are included in the individual line items for cost of revenues.

Cost of Cloud and Related Solutions (Exclusive of Depreciation). The cost of cloud and related solutions for the: (i) second quarter of 2018 increased 23% to \$95.2 million, from \$77.3 million for the second quarter of 2017; and (ii) six months ended June 30, 2018 increased 19% to \$182.1 million, from \$153.3 million for the six months ended June 30, 2017. These increases relate almost entirely to: (i) cloud and related solutions expense from the acquired Business Ink business; and (ii) the application of ASC 606, which resulted in \$4.7 million and \$11.0 million of costs for the second quarter and six months ended June 30, 2018, previously classified as cost of software and services and maintenance, now being classified as cost of cloud and related solutions. Total cloud and related solutions cost as a percentage of cloud and related solutions revenues for the: (i) second quarters of 2018 and 2017 were 50.8% and 49.0%, respectively; and (ii) six months ended June 30, 2018 and 2017 were 49.9% and 48.4%, respectively.

Cost of Software and Services (Exclusive of Depreciation). The cost of software and services for the: (i) second quarter of 2018 decreased 17% to \$8.6 million, from \$10.4 million for the second quarter of 2017; and (ii) six months ended June 30, 2018 decreased 21% to \$17.1 million from \$21.7 million for the six months ended June 30, 2017. These decreases are reflective of the decreases in revenue as personnel and the related costs previously allocated to professional services projects have been reassigned to other areas of the business. Total software and services cost as a percentage of our software and services revenues for the: (i) second quarters of 2018 and 2017 were 64.6% and 65.5%, respectively; and (ii) six months ended June 30, 2018 and 2017 were 67.8% and 70.0%, respectively.

Variability in quarterly revenues and operating results are inherent characteristics of companies that sell software licenses and perform professional services. Our quarterly revenues for software licenses and professional services may fluctuate, depending on various factors, including the timing of executed contracts and revenue recognition, and the delivery of contracted solutions. However, the costs associated with software and professional services revenues are not subject to the same degree of variability (e.g., these costs are generally fixed in nature within a relatively short period of time), and thus, fluctuations in our cost of software and services as a percentage of our software and services revenues will likely occur between periods.

Cost of Maintenance (Exclusive of Depreciation). The cost of maintenance for the: (i) second quarter of 2018 decreased 43% to \$5.7 million, from \$10.0 million for the second quarter of 2017; and (ii) six months ended June 30, 2018 decreased 44% to \$11.3 million, from \$20.4 million for the six months ended June 30, 2017. Total cost of maintenance as a percentage of our maintenance revenues for the: (i) second quarters of 2018 and 2017 were 46.1% and 52.6%, respectively; and (ii) six months ended June 30, 2018 and 2017 were 46.2% and 54.2%, respectively. These decreases can be attributed to the application of ASC 606, which resulted in \$4.5 million and \$9.6 million of costs for the second quarter and six months ended June 30, 2018, previously classified as maintenance, now being classified as cost of cloud and related solutions.

R&D Expense. R&D expense for the: (i) second quarter of 2018 increased 11% to \$31.0 million, from \$27.9 million for the second quarter of 2017; and (ii) six months ended June 30, 2018 increased 10% to \$60.3 million, from \$54.8 million for the six months ended June 30, 2017. These increases are reflective of our heightened level of investment that began in early 2017. As a percentage of total revenues, R&D expense for the second quarters of 2018 and 2017 were 14.5% for both periods.

Our R&D efforts are focused on the continued evolution of our solutions that enable service providers worldwide to provide a more personalized customer experience while introducing new digital products and services. This includes the continued investment in our cloud-based solutions (principally, around our Ascendon platform).

Selling, General and Administrative ("SG&A") Expense. SG&A expense for the: (i) second quarter of 2018 increased 10% to \$40.6 million, from \$36.8 million for the second quarter of 2017; and (ii) six months ended June 30, 2018 increased 10% to \$81.3 million, from \$74.2 million for the six months ended June 30, 2017. These increases can be primarily attributed to the SG&A costs related to Business Ink, to include the \$2.4 million of acquisition-related costs incurred during the first quarter of 2018. Our SG&A costs as a percentage of total revenues for the second quarters of 2018 and 2017 were 19.1% for both periods.

Depreciation. Depreciation expense for the: (i) second quarter of 2018 increased 37% to \$4.5 million, from \$3.3 million for the second quarter of 2017; and (ii) six months ended June 30, 2018 increased 28% to \$8.5 million, from \$6.6 million for the six months ended June 30, 2017. These increases can be primarily attributed to the increased level of capital expenditures we have made over the last twelve months, to include the depreciation expense from the acquired Business Ink assets.

Restructuring and Reorganization Charges. Restructuring and reorganization charges for the: (i) second quarter of 2018 and 2017 were \$3.3 million and \$2.7 million, respectively; and (ii) six months ended June 30, 2018 and 2017 were \$4.2 million and \$3.0 million, respectively. See Note 6 to our Financial Statements for further discussion regarding our restructuring and reorganization activities.

Operating Income. Operating income for the: (i) second quarter of 2018 was \$24.1 million, or 11.3% of total revenues, compared to \$24.2 million, or 12.6% of total revenues for the second quarter of 2017; and (ii) six months ended June 30, 2018 was \$49.9 million, or 12.0% of total revenues, compared to \$51.3 million or 13.3% of total revenues for the six months ended June 30, 2017. These decreases in operating income margin percentage can be mainly attributed to the costs associated with the acquisition and integration of Business Ink and our continued increase in planned investments in our business.

Loss on Extinguishment of Debt. In March 2018, we refinanced our 2015 Credit Agreement (see Note 4 to our Financial Statements). As a result, we incurred a loss of \$0.8 million related to the write-off of unamortized debt issuance costs.

Income Tax Provision. The effective income tax rates for the second quarters and six months ended June 30, 2018 and 2017 were as follows:

Quarter Ended June 30,		Six Months Ended June 30,	
2018	2017	2018	2017
27%	43%	29%	25%

The effective income tax rates for the quarter and six months ended June 30, 2018 reflect the impact of the Tax Reform Act that was passed into legislation in December 2017. The Tax Reform Act reduces the U.S. maximum rate of income taxation from 35% to 21% applicable to taxable years beginning after December 31, 2017. As a result, for the full-year 2018 we are currently estimating an effective income tax rate of approximately 29%.

The lower effective income tax rate for the six months ended June 30, 2017 reflects an approximately \$5 million net benefit resulting from Comcast's exercise of 1.4 million vested stock warrants in January 2017, as the stock warrants appreciated in value since their vesting, resulting in an income tax benefit to us when exercised.

Liquidity

Cash and Liquidity

As of June 30, 2018, our principal sources of liquidity included cash, cash equivalents, and short-term investments of \$186.4 million, as compared to \$222.1 million as of March 31, 2018 and \$261.4 million as of as of December 31, 2017. We generally invest our excess cash balances in low-risk, short-term investments to limit our exposure to market and credit risks.

During the first quarter of 2018, we refinanced our 2015 Credit Agreement primarily to extend the term of the loan from February 2020 to March 2023 and obtain a reduction in the interest rate and other fees. The 2018 Credit Agreement increased our liquidity and capital resources position by approximately \$30 million.

As part of our 2018 Credit Agreement, we have a \$200 million senior secured revolving loan facility with a syndicate of financial institutions that expires in March 2023. As of June 30, 2018, there were no borrowings outstanding on the 2018 Revolver. The 2018 Credit Agreement contains customary affirmative covenants and financial covenants. As of June 30, 2018, and the date of this filing, we believe that we are in compliance with the provisions of the 2018 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):

	June 30, 2018	December 31, 2017
Americas (principally the U.S.)	\$ 140,058	\$ 196,053
Europe, Middle East and Africa	37,324	48,030
Asia Pacific	8,982	17,277
Total cash, equivalents and short-term investments	<u>\$ 186,364</u>	<u>\$ 261,360</u>

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. As of June 30, 2018, we had \$2.0 million of cash restricted as to use primarily to collateralize outstanding letters of credit.

Cash Flows from Operating Activities

We calculate our cash flows from operating activities in accordance with GAAP, beginning with net income, adding back the impact of non-cash items or non-operating activity (e.g., depreciation, amortization, amortization of OID, impairments, gain/loss from debt extinguishments, deferred income taxes, stock-based compensation, etc.), and then factoring in the impact of changes in operating assets and liabilities. See our 2017 10-K for a description of the primary uses and sources of our cash flows from operating activities.

Our 2018 and 2017 net 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:			
2018:			
March 31	\$ 38,247	\$ (8,392)	\$ 29,855
June 30	38,476	(42,117)	(3,641)
Total	<u>\$ 76,723</u>	<u>\$ (50,509)</u>	<u>\$ 26,214</u>
2017:			
March 31	\$ 43,495	\$ (13,531)	\$ 29,964
June 30	26,364	8,160	34,524
Total	<u>\$ 69,859</u>	<u>\$ (5,371)</u>	<u>\$ 64,488</u>

Cash flows from operating activities for the first quarters of 2018 and 2017 reflect the negative impacts of the payment of the 2017 and 2016 year-end accrued employee incentive compensation in the first quarter subsequent to the year-end accrual for these items.

Cash flows from operating activities for the second quarter of 2018 was negatively impacted primarily by the increase in the accounts receivable balance mainly related to the timing of a recurring payment from a significant client that was delayed and received subsequent to quarter-end.

We believe the above table illustrates our ability to generate recurring quarterly cash flows from our operations, and the importance of managing our working capital items. Variations in our net cash provided by operating activities are generally related to the changes in our operating assets and liabilities (related mostly to fluctuations in timing at quarter-end of client 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 2018 and 2017 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 consistently strong quarterly 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
2018:				
March 31	\$ 217,018	\$ (3,967)	\$ 213,051	70
June 30	243,874	(3,961)	239,913	67
2017:				
March 31	\$ 198,135	\$ (2,824)	\$ 195,311	70
June 30	200,192	(2,706)	197,486	65

As a global provider of software and professional services, a portion of our accounts receivable balance relates to clients outside the U.S. As a result, this diversity in the geographic composition of our client base may adversely impact our DBOs as longer billing cycles (i.e., billing terms and cash collection cycles) are an inherent characteristic of international software and professional services transactions. For example, our ability to bill (i.e., send an invoice) and collect arrangement fees may be dependent upon, among other things: (i) the completion of various client administrative matters, local country billing protocols and processes (including local cultural differences), and/or non-client administrative matters; (ii) us meeting certain contractual invoicing milestones; or (iii) the overall project status in certain situations in which we act as a subcontractor to another vendor on a project.

Accrued Employee Compensation

Accrued employee compensation decreased \$18.5 million to \$44.5 million as of June 30, 2018, from \$63.0 million as of December 31, 2017, due primarily to the payment of the 2017 employee incentive compensation that was fully accrued at December 31, 2017, offset to a certain degree by the accrual for the 2018 employee incentive compensation.

Cash Flows from Investing Activities

Our typical investing activities consist of purchases/sales of short-term investments and purchases of property and equipment, which are discussed below. Additionally, as discussed earlier, during the first quarter of 2018 we acquired Business Ink for \$68.6 million, net of cash acquired, which is included in our cash flows from investing activities.

Purchases/Sales of Short-term Investments. For the six months ended June 30, 2018 and 2017, we purchased \$44.3 million and \$73.8 million, respectively, and sold (or had mature) \$116.9 million and \$104.3 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 will likely purchase and sell additional short-term investments in the future.

Property and Equipment/Client Contracts. Our capital expenditures for the six months ended June 30, 2018 and 2017, for property and equipment, and investments in client contracts were as follows (in thousands):

	June 30,	
	2018	2017
Property and equipment	\$ 26,715	\$ 18,738
Client contracts	-	7,526

Our property and equipment expenditures for these periods consisted principally of investments in: (i) statement production equipment; and (ii) computer hardware, software, and related equipment.

As a result of the application of ASC 606, \$3.5 million of investments in client contracts have been included in operating activities for the six months ended June 30, 2018. Previous to the adoption of ASC 606, investments in client contracts were included in investing activities.

Cash Flows from Financing Activities

Our financing activities typically consist of activities associated with our common stock and our long-term debt.

Cash Dividends Paid on Common Stock. During the six months ended June 30, 2018 and 2017, the Board approved dividend payments totaling \$14.2 million and \$13.4 million, respectively. During the six months ended June 30, 2018 and 2017, we paid dividends of \$14.4 million and \$13.7 million, respectively (with the additional amounts attributed to dividends for incentive shares paid upon vesting).

Repurchase of Common Stock. During the six months ended June 30, 2018 and 2017, we repurchased 0.3 million shares of our common stock under the guidelines of our Stock Repurchase Program for \$11.3 million and \$10.5 million, respectively.

Outside of our Stock Repurchase Program, during the six months ended June 30, 2018 and 2017, we repurchased from our employees and then cancelled 0.1 million and 0.2 million shares, respectively, of our common stock in each period for \$7.0 million and \$6.3 million, respectively, in connection with minimum tax withholding requirements resulting from the vesting of restricted common stock under our stock incentive plans.

Long-term Debt. During the first quarter of 2018, we refinanced our 2015 Credit Agreement and as a result, we repaid the outstanding principal balance of \$120.0 million and borrowed \$150.0 million under the 2018 Credit Agreement, resulting in a net increase of available cash of \$30.0 million. As part of the refinancing, we paid \$1.5 million of deferred financing costs.

Additionally, during the six months ended June 30, 2018 and 2017, we made principal repayments of \$1.9 million and \$7.5 million, respectively.

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

Capital Resources

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

Current Sources of Capital Resources.

- **Cash, Cash Equivalents and Short-term Investments.** As of June 30, 2018, we had cash, cash equivalents, and short-term investments of \$186.4 million, of which approximately 73% is in U.S. Dollars and held in the U.S. We have \$2.0 million of restricted cash, used primarily to collateralize outstanding letters of credit. 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 running our business.
- **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.
- **Long-Term Debt\Revolving Credit Facility.** In March 2018, we refinanced our 2015 Credit Agreement and as a result, we repaid the outstanding term loan principal balance of \$120.0 million and borrowed \$150.0 million, resulting in a net increase in cash of \$30 million (the 2018 Credit Agreement). The 2018 Credit Agreement also includes a \$200 million revolving loan facility (2018 Revolver). As of June 30, 2018, we had no borrowing outstanding on our 2018 Revolver and had the entire \$200 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 June 30, 2018, we had 6.0 million shares authorized for repurchase remaining under our Stock Repurchase Program. Our 2018 Credit Agreement places certain limitations on our ability to repurchase our common stock.

During the six months ended June 30, 2018, we repurchased 0.3 million shares of our common stock for \$11.3 million (weighted-average price of \$44.25 per share).

Under our Stock Repurchase Program, we may repurchase shares in the open market or a privately negotiated transaction, including through an ASR plan or under a SEC Rule 10b5-1 plan. The actual timing and amount of the share repurchases will be dependent on the then current market conditions and other business-related factors.

Outside of our Stock Repurchase Program, during the six months ended June 30, 2018, we repurchased from our employees and then cancelled 0.1 million shares of our common stock for \$7.0 million in connection with minimum tax withholding requirements resulting from the vesting of restricted common stock under our stock incentive plans.

Our common stock repurchases are discussed in more detail in Note 10 to our Financial Statements.

- Cash Dividends. During the six months ended June 30, 2018, the Board declared dividends totaling \$14.2 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. In February 2018, we acquired Business Ink, a privately-held multi-channel business communications company based in Austin, Texas for approximately \$70 million. The acquisition was funded from currently available cash. Our acquisition of Business Ink is discussed in more detail in Note 5 to our Financial Statements.

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 clients.

- Capital Expenditures. During the six months ended June 30, 2018, we spent \$26.7 million on capital expenditures. As of June 30, 2018, we had committed to purchase approximately \$16 million of equipment.
- Stock Warrants. We have issued Stock Warrants with an exercise price of \$26.68 per warrant to Comcast as an incentive for Comcast to convert new customer accounts to ACP. 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 June 30, 2018, approximately 1.4 million Stock Warrants are outstanding, of which 0.4 million are vested.

The Stock Warrants are discussed in more detail in Note 10 to our Financial Statements.

- Long-Term Debt. As discussed above, we refinanced our 2015 Credit Agreement in March 2018. As of June 30, 2018, our long-term debt consisted of the following: (i) 2016 Convertible Notes with a par value of \$230.0 million; and (ii) 2018 Credit Agreement term loan borrowings of \$148.1 million.

2016 Convertible Notes

During the next twelve months, there are no scheduled conversion triggers on our 2016 Convertible Notes. As a result, we expect our required debt service cash outlay during the next twelve months for the 2016 Convertible Notes to be limited to interest payments of \$9.8 million.

2018 Credit Agreement

Our 2018 Credit Agreement mandatory repayments and the cash interest expense (based upon current interest rates) for the next twelve months is \$7.5 million, and \$6.1 million, respectively. We have the ability to make prepayments on our 2018 Credit Agreement without penalty.

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, cash equivalents and short-term investments balances and our 2018 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 June 30, 2018, we are exposed to various market risks, including changes in interest rates, fluctuations and changes in the market value of our cash equivalents and

short-term investments, 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 2016 Convertible Notes is fixed, and thus, as it relates to our convertible debt borrowings, we are not exposed to changes in interest rates.

The interest rates under our 2018 Credit Agreement are based upon an adjusted LIBOR rate plus an applicable margin, or an alternate base rate plus an applicable margin. Refer to Note 4 to our Financial Statements for further details of our long-term debt.

A hypothetical adverse change of 10% in the June 30, 2018 adjusted LIBOR rate would not have had a material impact upon our results of operations.

Market Risk

Cash Equivalents and Short-term Investments. Our cash and cash equivalents as of June 30, 2018 and December 31, 2017 were \$119.7 million and \$122.3 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, commercial paper, and time deposits 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 June 30, 2018 and December 31, 2017 were \$66.7 million and \$139.1 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: (i) a maximum maturity; (ii) a maximum concentration and diversification; and (iii) a minimum acceptable credit quality. At this time, we believe we have minimal liquidity risk associated with the short-term investments included in our portfolio.

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 June 30, 2018, the fair value of the 2016 Convertible Notes was estimated at \$242.4 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 six months ended June 30, 2018, we generated approximately 87% of our revenues in U.S. dollars. We expect that, in the foreseeable future, we will continue to generate a very large percentage of our revenues in U.S. dollars.

As of June 30, 2018 and December 31, 2017, 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):

	June 30, 2018		December 31, 2017	
	Monetary Liabilities	Monetary Assets	Monetary Liabilities	Monetary Assets
Pounds sterling	\$ (92)	\$ 1,555	\$ -	\$ 1,968
Euro	(66)	7,590	(257)	8,491
U.S. Dollar	-	23,404	(178)	19,354
Other	(236)	2,015	(9)	2,074
Totals	<u>\$ (394)</u>	<u>\$ 34,564</u>	<u>\$ (444)</u>	<u>\$ 31,887</u>

A hypothetical adverse change of 10% in the June 30, 2018 exchange rates would not have had a material impact upon our results of operations based on the monetary assets and liabilities as of June 30, 2018.

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. 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 2017 Form 10-K. There were no material changes to the risk factors disclosed in our 2017 Form 10-K during the second quarter of 2018.

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

The following table presents information with respect to purchases of company common stock made during the second quarter of 2018 by CSG Systems International, Inc. or any “affiliated purchaser” of CSG Systems International, Inc., as defined in Rule 10b-18(a)(3) under the Exchange Act.

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)	Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plan or Programs (2)
April 1 - April 30	47,264	\$ 45.14	47,000	6,070,717
May 1 - May 31	60,841	40.61	44,650	6,026,067
June 1 - June 30	42,418	42.32	39,950	5,986,117
Total	150,523	\$ 42.51	131,600	

- (1) The total number of shares purchased that are not part of the Stock Repurchase Program represents shares purchased and cancelled in connection with stock incentive plans.
- (2) See Note 10 to our Financial Statements for additional information regarding our share repurchases.

Item 3. Defaults Upon Senior Securities

None

Item 4. Mine Safety Disclosures

None

Item 5. Other Information

None

Item 6. Exhibits

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

CSG SYSTEMS INTERNATIONAL, INC.
INDEX TO EXHIBITS

Exhibit Number	Description
10.22AH*	<u>Thirty-third Amendment to the CSG Master Subscriber Management System Agreement between CSG Systems, Inc. and Comcast Cable Communications Management, LLC</u>
10.22AI*	<u>Thirty-fifth Amendment to the CSG Master Subscriber Management System Agreement between CSG Systems, Inc. and Comcast Cable Communications Management, LLC</u>
10.26K*	<u>Thirteenth Amendment to Consolidated CSG Master Subscriber Management System Agreement between CSG Systems, Inc. and Charter Communications Operating, LLC</u>
10.26L*	<u>Fifteenth Amendment to Consolidated CSG Master Subscriber Management System Agreement between CSG Systems, Inc. and Charter Communications Operating, LLC</u>
10.26M*	<u>Seventeenth Amendment to Consolidated CSG Master Subscriber Management System Agreement between CSG Systems, Inc. and Charter Communications Operating, LLC</u>
10.26N*	<u>Eighteenth Amendment to Consolidated CSG Master Subscriber Management System Agreement between CSG Systems, Inc. and Charter Communications Operating, LLC</u>
10.83	<u>Forms of Agreement for Equity Compensation</u>
10.85	<u>Forms of Agreement for Equity Compensation</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	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

* Portions of the exhibit have been omitted pursuant to an application for confidential treatment, and the omitted portions have been filed separately with the Commission.

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: August 3, 2018

CSG SYSTEMS INTERNATIONAL, INC.

/s/ Bret C. Griess

Bret C. Griess

President and Chief Executive Officer

(Principal Executive Officer)

/s/ Rolland B. Johns

Rolland B. Johns

Executive Vice President, Chief Financial Officer and Chief Accounting Officer

(Principal Financial Officer and Principal Accounting Officer)

**THIRTY-THIRD AMENDMENT
TO THE
CSG MASTER SUBSCRIBER MANAGEMENT SYSTEM AGREEMENT
BETWEEN
CSG SYSTEMS, INC.
AND
COMCAST CABLE COMMUNICATIONS MANAGEMENT, LLC**

THIS THIRTY-THIRD AMENDMENT (the "Amendment") is made by and between **CSG Systems, Inc.** ("CSG") and **Comcast Cable Communications Management, LLC** ("Customer"). The Effective Date of this Amendment is the date last signed below. CSG and Customer entered into a certain CSG Master Subscriber Management System Agreement (CSG document #2501940) with an effective date of March 1, 2013 (the "Agreement") and now desire to 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, pursuant to the Agreement, CSG provides Customer with a non-exclusive, non-transferable and perpetual right and license to use CSG Screen Express® including Enhanced Call Routing ("ECR"), Event Intelligence (EI), Email Capture, and ANI Clean-up (collectively, the "Screen Express Related Products");

WHEREAS, pursuant to the Agreement, CSG provides maintenance and support related to the Screen Express Related Products ("Screen Express Support") to Customer; and

WHEREAS, Customer (i) has ceased using the Screen Express Related Products in connection with Customer's operations, and (ii) has informed CSG that it is no longer necessary for CSG to support and maintain the Screen Express Related Products.

NOW THEREFORE, CSG and Customer agree to the following as of the Effective Date:

1. Customer desires to remove all licenses of the Screen Express Related Products originally provided to Customer via the Agreement. Upon the Effective Date, CSG shall purge all copies of the Screen Express Related Products from the Designated Environment and all other computer systems, storage media and other files and as a result, as of the Effective Date, Screen Express and the Screen Express Related Products are no longer used by Customer and no longer supported by CSG.
2. As a result, references to the Screen Express Related Products are hereby deleted throughout the Agreement including, but not limited to, the following references set forth in Schedules B, C, D, E and F, respectively:
 - (a) Schedule B, entitled "Product Licenses, Maintenance and Support" where it will be removed as follows:
 - a. Remove "16. Screen Express" from Exhibit B(1)(a) "Export Approved Products and Export Approved Countries," and insert in its place "16. [*Intentionally Left Blank*],"
 - b. Remove "20. Enhanced Call Routing" from Exhibit B(1)(a) "Export Approved Products and Export Approved Countries," and insert in its place "20. [*Intentionally Left Blank*],"
 - c. Remove "CSG Screen Express®/Message Express®" from Exhibit B-1 "Enterprise Products," section entitled "Product Name,"
 - d. Remove "Screen Express," from Exhibit B-1 "Enterprise Products," section entitled "Product Descriptions," within the description for "ACSR® (web enabled),"
 - e. Remove "Enhanced Call Routing Messaging (ECR) – Enhanced Call Routing Messaging provides the capability to create messages that pop based upon the ECR attributes identified within the business rules engine that allows for site configuration to target specific messages based upon those

- attributes,” from Exhibit B-1 “Enterprise Products,” section entitled “Product Descriptions,” under description for “CSG Desktop Solution Bundle,” and
- f. Remove “CSG Screen Express®/Message Express®. Integrated with CSG ACSR and the call center’s ACD telephony switch, CSG Screen Express provides incoming call/ACSR screen synchronization at the CSR workstation. In addition, CSG Screen Express provides basic software-based operations of the CSR’s physical telephone,” from Exhibit B-1 “Enterprise Products,” section entitled “Product Descriptions,”
- (b) Schedule C, entitled “Recurring Services” where it will be removed as follows:
- a. Remove “CSG Screen Express®/Message Express®,” from the list of Enterprise Licensed Products, and
- b. Remove “CSG Screen Express®/Message Express®,” from the list of **** products and services set forth in “Attachment A to Exhibit C-1” entitled “CSG Systems, Inc. Business Continuity/Disaster Recovery Plan,”
- (c) Schedule D, entitled “Designated Environments” where it will be removed as follows:
- a. Remove the Designated Environment entitled “CSG Screen Express® Designated Environment” in its entirety; and
- (d) Schedule E, entitled “Technical Services” where it will be removed as follows:
- a. Remove “Screen Express” from the list of Products set forth in the table located at the bottom of Exhibit E-8, the sample “Business Requirement Document (BRD),” and
- b. Remove “Screen Express” from the Exhibit E-9, the sample “Initial Project Analysis,” in the table entitled “Impacted Components,”
- (e) Schedule F.1, entitled “Listing of Products and Services Included in the BSC” where it will be removed as follows:
- a. Remove references to “CSG Screen Express/Message Express,” from section VIII, entitled “CSG Licensed Products,” subsection A, entitled “Product installation and other associated items,” subsection 1 and subsection 2,
- b. Remove reference to “Screen Express Implementations,” from section VIII, entitled “CSG Licensed Products,” subsection A, entitled “Product installation and other associated items,” subsection 6,
- c. Remove subsection 17 entitled “Screen Express Enhanced Call Routing Implementation (SOW #225-5061)” in its entirety from section IX, entitled “Miscellaneous,” subsection A, entitled “***** and/or ***** recurring fees provided in an SOW or LOA (fees that are not specifically listed in any other product or service section of Schedule F),” and insert in its place: “17. [*Intentionally Left Blank*],”
- d. Remove subsection 47 entitled “CSG Screen Express® launch for ***** ** call center in the ***** Division (***** and ***** and ***** (CO #1 Document #230-2103 to SOW ##230-1489)” in its entirety from section IX, entitled “Miscellaneous,” subsection A, entitled “***** and/or ***** recurring fees provided in an SOW or LOA (fees that are not specifically listed in any other product or service section of Schedule F),” and insert in its place: “47. [*Intentionally Left Blank*],”
- e. Remove subsection 50 entitled “Implement ANI Clean-up Window in CSG’s Screen Express® - *** ***** (SOW #230-7782)” in its entirety from section IX, entitled “Miscellaneous,” subsection A, entitled “***** and/or ***** recurring fees provided in an SOW or LOA (fees that are not specifically listed in any other product or service section of Schedule F),” and insert in its place: “50. [*Intentionally Left Blank*],”
- f. Remove subsection 53 entitled “Implement CSG Screen Express® - ANI Cleanup Plus Email Capture Module – ***** Division (SOW #231-0677)” in its entirety from section IX, entitled “Miscellaneous,” subsection A, entitled “***** and/or ***** recurring fees provided in an SOW or LOA (fees that are not specifically listed in any other product or service section of Schedule F),” and insert in its place: “53. [*Intentionally Left Blank*],”
- g. Remove subsection 55 entitled “Implement CSG Screen Express® - ANI Cleanup Plus E-mail Capture Module – ***** (SOW #231-3424)” in its entirety from section IX, entitled “Miscellaneous,” subsection A, entitled “***** and/or ***** recurring fees provided in an SOW or LOA (fees that are not specifically listed in any other product or service section of Schedule F),” and insert in its place: “55. [*Intentionally Left Blank*],”
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- h. Remove references to “Enhanced Call Routing/Enhanced Messaging,” from section VIII, entitled “CSG Licensed Products,” subsection A, entitled “Product installation and other associated items,” subsection 6, entitled “CSG Desktop Solutions Bundle,” underneath the heading “The term license fee includes the following:”
 - i. Remove subsection 33 entitled “Implement Event Intelligence module for Comcast ***** (SOW #229-7836)” in its entirety from section IX, entitled “Miscellaneous,” subsection A, entitled “***** and/or ***** recurring fees provided in an SOW or LOA (fees that are not specifically listed in any other product or service section of Schedule F),” and insert in its place: “33. [*Intentionally Left Blank*],”
 3. As a further result, the parties acknowledge and agree that the following Statements of Work and Change Orders related to the Screen Express Related Products are hereby terminated and of no further force or effect:
 - a. Statement of Work entered into between the parties effective December 27, 2006, related to “Implementation of Enhanced Call Routing (ECR) and Screen Express® for Customer’s Outsourcers,” (CSG document # 2292909);
 - b. Change Order #1 entered into between the parties effective July 7, 2008 (CSG document # 2296175), to Statement of Work entered into between the parties effective December 27, 2006, related to “Implementation of Enhanced Call Routing (ECR) and Screen Express® for Customer’s Outsourcers,” (CSG document # 2292909);
 - c. Statement of Work entered into between the parties effective November 24, 2008, related to “Implement Event Intelligence module for Comcast *****,” (CSG document # 2297836);
 - d. Statement of Work entered into between the parties effective March 31, 2009, related to “Implement Event Intelligence module of CSG Screen Express® for Comcast *** *****,” (CSG document # 2299405);
 - e. Statement of Work entered into between the parties effective September 16, 2009, related to “CSG Screen Express® launch for ***** ** call center in the ***** Division (***** ***** and *****),” (CSG document # 2301489);
 - f. Change Order #1 entered into between the parties effective December 18, 2009 (CSG document # 2302103), to Statement of Work related to “CSG Screen Express® launch for ***** ** call center in the ***** Division (***** ***** and *****),” (CSG document # 2301489);
 - g. Statement of Work entered into between the parties effective March 26, 2010, related to “Screen Express® Avaya Launch for the **** Division Business Services Group Call Center in *****,” (CSG document # 2302076);
 - h. Change Order #1 entered into between the parties effective June 10, 2010 (CSG document # 2304466), to Statement of Work related to “Screen Express® Avaya Launch for the **** Division Business Services Group Call Center in *****,” (CSG document # 2302076);
 - i. Statement of Work entered into between the parties effective March 31, 2011, related to “Implement ANI Clean-up Window in CSG’s Screen Express®-*** *****,” (CSG document # 2307782);
 - j. Statement of Work entered into between the parties effective October 31, 2011, related to “Implement CSG Screen Express®-ANI Cleanup Plus Email Capture Module-***** Division,” (CSG document # 2310677);
 - k. Statement of Work entered into between the parties effective August 8, 2012, related to “Implement CSG Screen Express®-ANI Cleanup Plus E-mail Capture Module-*****,” (CSG document # 2313424);
 - l. Statement of Work entered into between the parties effective October 19, 2012, related to “CSG Screen Express® and ECR Launch-**** Division Business Services Group Call Centers,” (CSG document # 2314295);

*** Confidential Treatment Requested and the Redacted Material has been separately filed with the Commission.

THIS AMENDMENT is executed on the day and year last signed below (“Effective Date”).

**COMCAST CABLE COMMUNICATIONS
MANAGEMENT, LLC (“CUSTOMER”)**

CSG SYSTEMS, INC. (“CSG”)

By: /s/ Jeur Abeln

By: /s/ Gregory L. Cannon

Name: Jeur Abeln

Name: Gregory L. Cannon

Title: Senior Vice President Procurement

Title: SVP, General Counsel & Secretary

Date: 5-7-2018

Date: May 8, 2018

**THIRTY-FIFTH AMENDMENT
TO THE
CSG MASTER SUBSCRIBER MANAGEMENT SYSTEM AGREEMENT
BETWEEN
CSG SYSTEMS, INC.
AND
COMCAST CABLE COMMUNICATIONS MANAGEMENT, LLC**

THIS THIRTY-FIFTH AMENDMENT (the "Amendment") is made by and between **CSG Systems, Inc .** ("CSG") and **Comcast Cable Communications Management, LLC** ("Customer"). The Effective Date of this Amendment is the date last signed below. CSG and Customer entered into a certain CSG Master Subscriber Management System Agreement (CSG document #2501940) with an effective date of March 1, 2013 (the "Agreement") and now desire to 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 requested and CSG has implemented support for Customer's ***** (the "CSG *****") integrating Customer's chosen third party vendor, which is initially *****, pursuant to the Agreement as more specifically set forth in three (3) fully executed Statements of Work (CSG document numbers 4113885, 4114739, and 4114740); and

WHEREAS, Customer's third party vendor, *****, is providing ***** services to Customer, and

WHEREAS, Customer acknowledges and CSG agrees that support services for such ***** shall incur an ***** Support and Maintenance fee commencing with the ***** invoice; and

WHEREAS , Customer and CSG agree that certain performance standards shall be agreed to for the delivery of *** files to Customer's third party vendor.

NOW THEREFORE, CSG and Customer agree to the following as of the Effective Date:

- 1 . As of the Amendment Effective Date, Schedule E, Fees, Section III, Direct Solutions (print and mail), subsection IX, entitled "CSG ***** Fees" shall be deleted in its entirety and replaced with the following:

Description of Item/Unit of Measure	Frequency	Fee
IX.CSG ***** Fees		
1.Support and Maintenance Fee for the ***** (Note 30)	*****	(**** *)
2.***** Support and Maintenance Fee (Note 29) (Note 31) (Note 32)	*****	\$*****
3.Implementation Fees (Note 30)	*** *****	*****

Note 29: Customer has chosen ***** as its third party vendor to provide ***** services to Customer. As a result, CSG will provide Customer with a support and maintenance solution for purposes of supporting the ***** services being provided to Customer by Customer's third party vendor (the "CSG *****"). ***** Support and Maintenance for the CSG ***** shall consist of the following components:

Component	Fee Portion
LPAR ***% Dedicated to Customer * VMs (including hardware/ software maintenance)	\$*****
Post ***** Processing Software ***** Maintenance and Support Costs	\$*****
Dedicated Technical Support Team	\$*****

Note 30: The Support and Maintenance Fee for the ***** and the Implementation Fees were set forth in three (3) executed Statements of Work (Document #s 4113885, 4114739 and 4114740).

Note 31: After the ***** period beginning ***** and ending ***** the ***** Support and Maintenance Fee shall be invoiced upon the Effective Date of that certain Thirty-Fifth Amendment to the Agreement (CSG doc. #4117342); and (ii) for any ***** periods, the ***** Support and Maintenance Fee shall be invoiced in advance on the respective ***** invoices for such periods. If CSG and Customer renegotiate the fees, terms and conditions of the CSG ***** the parties will also mutually agree on any updated invoicing logistics that may be necessary.

Note 32: Customer shall provide CSG with no less than **** (*) ***** written notice (email sufficient) of Customer's election to discontinue the CSG *****
 ***** CSG shall have the right to invoice Customer for a pro-rated portion of the ***** Support and Maintenance Fee should any portion of the **** (*) ***** notice period extend
 into the next ***** ****

2. As of the Amendment Effective Date, Schedule L, entitled “Performance Standards and Remedies,” subsection a. entitled “Performance Standards (i) through (xiii),” shall be amended to add a new performance standard (xiv) to provide as follows:

[illegible]

3. As of the Amendment Effective Date, Schedule L, entitled “Performance Standards and Remedies,” shall be further amended in the following respects :

- [illegible]

*** Confidential Treatment Requested and the Redacted Material has been separately filed with the Commission.

THIS AMENDMENT is executed on the day and year last signed below (“Effective Date”).

**COMCAST CABLE COMMUNICATIONS
MANAGEMENT, LLC (“CUSTOMER”)**

CSG SYSTEMS, INC. (“CSG”)

By: /s/ Jeur Abeln

By: /s/ Gregory L. Cannon

Name: Jeur Abeln

Name: Gregory L. Cannon

Title: SVP Procurement

Title: SVP, General Counsel & Secretary

Date: 6/29/2018

Date: 6/29/2018

**THIRTEENTH AMENDMENT
TO
CONSOLIDATED
CSG MASTER SUBSCRIBER MANAGEMENT SYSTEM AGREEMENT
BETWEEN
CSG SYSTEMS, INC.
AND
CHARTER COMMUNICATIONS OPERATING, LLC**

SCHEDULE AMENDMENT

This Thirteenth 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 Consolidated CSG Master Subscriber Management System Agreement effective as of August 1, 2017 (CSG document no. 4114281), 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 pursuant to the terms of the Agreement, CSG provides and Customer consumes CSG Vantage® Plus Services (“Vantage Plus”); and

WHEREAS, Customer has requested and CSG has agreed to provide modifications to Vantage Plus for archival storage services; and

WHEREAS, the parties agree to amend the terms of the Vantage Plus archival storage services and certain of the fees related thereto.

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 as follows as of the date last signed below (the “Effective Date”).

1. The parties agree to amend the terms of Vantage Plus Services such that references in the Agreement, including Schedule C, “Recurring Services” to an archival and/or storage period of **** (*) ***** related to Report Images and/or Report Tables shall be deemed amended to be a storage period of **** (*) *****.
2. Further, upon execution of this Amendment and pursuant to the terms and conditions of the Agreement, Schedule F, “Fees,” Section 1., “CSG Services,” subsection V., “Advanced Reporting,” subsection B, “CSG Vantage® Plus,” shall be deleted in its entirety and replaced as follows:

B. CSG Vantage® Plus (Note 1)

Description of Item/Unit of Measure	Frequency	Fee
1.CSG Vantage Plus (Note 3)		
a.Startup – Tables (per *****)		
i.Initial Vantage Plus Setup	*** *****	\$ *****

Description of Item/Unit of Measure	Frequency	Fee
b.***** Fee includes the following (per *****) (Note 5)	*****	\$*****
▪ ***** (**) concurrent user IDs		
▪ All Report Tables		
▪ Standard report retention:		
▪ Monthly Reports – ** ****		
▪ Daily Reports – ** ****		
▪ Weekly Reports – ** ****		
▪ Vantage Near Real Time Tables (Note 4)		
c.Additional Reports:		
i.Non-ACP Reports or Report Table	*** *****	****
d.Setup and Modifications to the environment		
i.Additional user IDs (per *****)	*** *****	\$ *****
ii.Additional report development (per *****)	*** *****	\$ *****
iii.Web system and principle configuration changes (per ***** , per ****) (Note 2)	*** *****	\$ *****
iv.Extended Retention	*** *****	****
v.Add *** (*) processors to Customer’s CSG Vantage partition (\$*****/per *****)	*** *****	\$*****
vi.Annual maintenance of the *** (*) processors (**% fee per ***** , \$*****/per *****)	*****	\$*****
2.CSG Vantage Plus Archives (Notes 6-8)		
a.Set Up Fee – Production Environment (Enterprise-wide)	*****	\$*****
b.Pre-load of *** (*) ***** of historical Report Image data	*****	\$*****
c.Storage Fees for Report Tables (per ***** , subject to Note 7)	*****	***** ** **
d.Storage Fees for Customer-requested Report Images (per ***** , subject to Note 8) that are stored for more than ***** (*) *****	*****	\$*****

Note 1: Lead times vary for specific items included in Vantage Plus. CSG Product Management must be consulted for most current lead time requirements.

Note 2: A site is defined as all system principles accessed and administered in the CSG Vantage Plus application in accordance with the Agreement.

Note 3: Customer is responsible for the networking facility to access CSG Vantage Plus.

Note 4: Retention shall not exceed ***** (**) ***** for Near Real-Time tables.

Note 5: Customer shall have Web access to all Report Tables through CSG’s Vantage Plus application for the fees set forth above. If Customer elects to subscribe to a report for which CSG has previously made a relational table, Customer may access such report data through core CSG Vantage as well.

Note 6: CSG shall provide configuration for up to *** ***** (**) ***** and retention of Report Images for up to ***** (*) ***** , with no Storage Fees, as an item included in the BSC.

Note 7: Storage capacity will be measured ***** in ***** . The ***** Storage Fee will be included in the BSC for the ***** ***** and \$***** for each ***** thereafter. For example: If, during a ***** period, Customer utilizes ***** of storage for its archival report storage, Customer will not be invoiced an additional fee for that ***** ; ***** will be invoiced in the amount of \$***** ; ***** will be invoiced in the amount of \$***** , etc.

Note 8: Customer has a current allotment of *** ***** (**) ***** that may access Vantage Plus Archives.

3. Further, for purposes of clarification, Schedule F ; Line Item 17 of “The Monthly BSC for Video and High Speed Data, and Residential Voices Services includes the following” shall be deleted in its entirety and replaced as follows:

17. CSG Vantage Plus® Archives (for up to *** ***** (**) ***** and retention of Report Images for up to ***** (*) *****). CSG Vantage Plus® Archives provides archival storage services through a CSG hosted, browser based application. ACP system-generated production report images ("Report Images") are stored in an archived data store and are accessible in HTML, PDF, and ASCII text formats (refer to Section 1, “CSG SERVICES,” subsection V, “Advanced Reporting,” subsection B, “CSG Vantage® Plus,” of Schedule F to the Agreement for items that are billed separately and excluded from the BSC).

*** Confidential Treatment Requested and the Redacted Material has been separately filed with the Commission.

THIS AMENDMENT is executed on the days and year last signed below to be effective as of the Effective Date (defined above).

CHARTER COMMUNICATIONS HOLDING
COMPANY, LLC ("CUSTOMER")

CSG SYSTEMS, INC. ("CSG")

By: Charter Communications, Inc., its Manager

By: /s/ Mike Ciszek

By: /s/ Gregory L. Cannon

Title: Mike Ciszek

Title: Gregory L. Cannon

Name: SVP - Billing Strategy and Operation

Name: SVP, General Counsel & Secretary

Date: 4/6/18

Date: 4/6/18

**FIFTEENTH AMENDMENT
TO
CONSOLIDATED
CSG MASTER SUBSCRIBER MANAGEMENT SYSTEM AGREEMENT
BETWEEN
CSG SYSTEMS, INC.
AND
CHARTER COMMUNICATIONS OPERATING, LLC**

SCHEDULE AMENDMENT

This Fifteenth 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 Consolidated CSG Master Subscriber Management System Agreement effective as of August 1, 2017 (CSG document no. 4114281), 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, pursuant to the terms of the Agreement, CSG provides and Customer consumes CSG SmartLink® BOS ("SLBOS") and Event Notification Interfaces (ENI) based on Transactions per Second ("TPS") calculations; and

WHEREAS, Customer has requested and CSG has agreed to provide modifications to the terms of Customer's TPS calculations.

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 as follows to be effective, upon execution of this Amendment by CSG and Customer, as of January 1, 2018 (the "Effective Date").

- 1. The parties agree to amend the terms of Customer's TPS calculations to provide for incremental TPS for Customer's SLBOS and ENI processing.**
- 2. As a result, upon execution of this Amendment and pursuant to the terms and conditions of the Agreement, Schedule F, "Fees," Section 1., "CSG Services," subsection II., "Interfaces," subsection C, "CSG SmartLink® BOS (SLBOS) and Event Notification Interfaces (ENI)," is amended as follows:**

- a) Line Item 4, "SLBOS and ENI Transaction per Second ("TPS")" shall be amended to add a reference to a "Note 10" with "(Notes 5-9)" as follows:

Processing Capacity Tiers	Frequency	Fee
4. SLBOS and ENI Transactions per Second ("TPS") (Notes 5-9)		

- b) A new **Note 9** is added, following **Note 8**, as follows:

Note 9: CSG agrees to provide an incremental ***** (**) TPS for the period commencing ***** *, 2018, through ***** **, 2018.

*** Confidential Treatment Requested and the Redacted Material has been separately filed with the Commission.

THIS AMENDMENT is executed on the days and year last signed below to be effective as of the Effective Date (defined above).

**CHARTER COMMUNICATIONS HOLDING
COMPANY, LLC (“CUSTOMER”)**

CSG SYSTEMS, INC. (“CSG”)

By: Charter Communications, Inc., its Manager

By: /s/ Mike Ciszek

By: /s/ Gregory L. Cannon

Title: SVP, Billing Strategy & Ops

Title: SVP, General Counsel & Secretary

Name: Mike Ciszek

Name: Gregory L. Cannon

Date: 4/20/2018

Date: Apr 20, 2018

**SEVENTEENTH AMENDMENT
TO
CONSOLIDATED
CSG MASTER SUBSCRIBER MANAGEMENT SYSTEM AGREEMENT
BETWEEN
CSG SYSTEMS, INC.
AND
CHARTER COMMUNICATIONS OPERATING, LLC**

SCHEDULE AMENDMENT

This Seventeenth 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 Consolidated CSG Master Subscriber Management System Agreement effective as of August 1, 2017 (CSG document no. 4114281), 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. The effective date of this Amendment is the date last signed below (the "Effective Date").

WHEREAS, Customer desires to have the "Frequency" (as identified in fee tables in Schedule F of the Agreement) of invoicing of the fees changed from an ***** to a ***** basis that will be applicable to such Products and Services identified herein.

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 as follows:

1. CSG and Customer agree that the "Frequency," as identified in fee tables in Schedule F of the Agreement, of invoicing for the following Products and Services identified in Schedule F of the Agreement will, as of the Effective Date herein (defined above), be changed from invoicing on an ***** basis to invoicing on a ***** basis:

Product/Service Description*
1. PDB Access - for capacity up to and including ***** video and/or HSD Connected Subscribers
2. ACP Commercial Upgrade Service
a. Existing Capacity ***** Maintenance
b. Additional Capacity ***** Maintenance
3. SmartLink® BOS Performance Test Environment - Hardware, Software and Environment Maintenance and Support
4. Automated Third Party Verification (TPV) for Voice Services Interface - Maintenance and Processing
5. Mail Trace Mailer ID (MID)
6. Kiosk Software Support Services Fees (per *****)
7. Vantage User Maintenance (per *****/*****) - Includes ***** (**) Vantage User IDs/Sessions at the rate of ***** (*) of the ***** Vantage User Maintenance for the Term of the Agreement ("Discounted Vantage User IDs/Sessions")
8. Vantage - Modifications to the environment - ***** maintenance of the ***** (*) processors (**% fee per *****)
9. CSG Data Publisher
a. Vantage Edition Maintenance Fees
b. File Edition Maintenance Fees-Initial Data Publisher Objects
c. File Edition Maintenance Fees-Additional Data Publisher Objects (per *****)
10. E911 Enhancement ***** Support
11. StatHub Support and Maintenance
12. Event Manager for up to ***** (*****) Customer subscribers - Access Maintenance and Support
13. AOI API Maintenance
14. Custom DNIS AOI Solution - Maintenance Services

*** **Confidential Treatment Requested and the Redacted Material has been separately filed with the Commission.**

Product/Service Description*
15. WFX Penguin API Support and Maintenance
16. Upgrade to Direct Connection - Maintenance and Support

* For avoidance of doubt, the ***** fee amount applicable to the above identified Product and/or Service will be divided by ***** (**) to arrive at the applicable ***** fee amount. Notwithstanding the foregoing, ACSR (Web Enabled) Facilities Management (per *****) will be divided by ***** (*) to arrive at the applicable ***** fee.

2. CSG and Customer agree that the “Frequency,” as identified in fee tables in Schedule F of the Agreement, of invoicing for the following Products and Services identified in Schedule F of the Agreement will, as of the Effective Date herein (defined above), be changed from invoicing on a quarterly basis to invoicing on a monthly basis:

Product/Service Description**
1. ACSR (Web-Enabled) Facilities Management (per *****)

** For avoidance of doubt, the ***** fee amount applicable to the above identified Product and/or Service will be divided by ***** (*) to arrive at the applicable ***** fee.

THIS AMENDMENT is executed on the days and year last signed below to be effective as of the Effective Date.

**CHARTER COMMUNICATIONS HOLDING
COMPANY, LLC (“CUSTOMER”)**

CSG SYSTEMS, INC. (“CSG”)

By: Charter Communications, Inc., its Manager

By: /s/ Mike Ciszek

By: /s/ Gregory L. Cannon

Title: SVP, Billing Strategy & Ops

Title: SVP, General Counsel & Secretary

Name: Mike Ciszek

Name: Gregory L. Cannon

Date: 4/20/18

Date: Apr 20, 2018

EIGHTEENTH AMENDMENT
TO
CONSOLIDATED
CSG MASTER SUBSCRIBER MANAGEMENT SYSTEM AGREEMENT
BETWEEN
CSG SYSTEMS, INC.
AND
CHARTER COMMUNICATIONS OPERATING, LLC

SCHEDULE AMENDMENT

This Eighteenth 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 Consolidated CSG Master Subscriber Management System Agreement effective as of August 1, 2017 (CSG document no. 4114281), 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. The effective date of this Amendment is the date last signed below (the "Effective Date").

WHEREAS, Pursuant to the terms of the Agreement, CSG provides and Customer consumes CSG Vantage® Users/IDs/Sessions for up to *** *****
***** (*****) Vantage UserIDs/Sessions, including *** ***** (**) Discounted Vantage User IDs/Sessions; and

WHEREAS, Customer, subsequent to August 1, 2017, has requested and CSG has provided, pursuant to Technical Service Requests executed from time to time by the Parties commencing on or after August 1, 2017, through April 30, 2018, *** ***** (**) additional Vantage UserIDs/Sessions to bring the current aggregate number of Vantage UserIDs/Sessions to *** ***** (*****) Vantage UserIDs/Sessions.

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:

1. CSG and Customer agree that as of April 30, 2018, the number of Vantage UserIDs/Sessions for which CSG invoices Customer is *** *****
***** (*****) and, further, as a result, Schedule F of the Agreement, Section 1, "CSG Services," Subsection III, "Payment Procurement," Subsection V., Advanced Reporting, Subsection A., "CSG Vantage®," Notes 9 and 10 are deleted in their entirety and replaced as follows to reflect the updated number of Vantage UserIDs/Sessions invoiced by CSG and utilized by Customer as of April 30, 2018, as follows:

Note 9: CSG and Customer agree that as of April 30, 2018, Customer has requested and is utilizing *** ***** (*****) Vantage UserIDs/Sessions. Therefore, CSG will invoice and Customer agrees to pay the annual maintenance pursuant to section A.2 of the table above in accordance with the Agreement for ***
***** (*****) Vantage UserIDs/Sessions. In the event Customer requests additional Vantage User IDs/Sessions, the fees as set forth in sections A.1 and A.2 of the table above shall apply.

Note 10: Notwithstanding the foregoing in Note 9 above, CSG agrees to provide *** ***** (**) Vantage User IDs/Sessions of such *** *****
***** (*****) Vantage UserIDs/Sessions at the rate of ***** (*) of the Annual Vantage User Maintenance for the Term of the Agreement ("Discounted Vantage User IDs/Sessions"). CSG and Customer acknowledge and agree that it is the intent of the Parties that the Discounted Vantage User IDs/Sessions hereunder will be utilized concurrently with the *** ***** (**) current Customer Vantage IDs/Sessions to allow users to query Customer's Vantage data on *** (*) database instances.

*** Confidential Treatment Requested and the Redacted Material has been separately filed with the Commission.

THIS AMENDMENT is executed on the days and year last signed below to be effective as of the Effective Date.

**CHARTER COMMUNICATIONS HOLDING
COMPANY, LLC (“CUSTOMER”)**

CSG SYSTEMS, INC. (“CSG”)

By: Charter Communications, Inc., its Manager

By: /s/ Mike Ciszek

By: /s/ Gregory L. Cannon

Title: Mike Ciszek

Title: Gregory L. Cannon

Name: SVP - Billing Strategy and Operation

Name: SVP, General Counsel & Secretary

Date: 5/17/18

Date: 5/18/18

This exhibit contains forms of agreements used by the company to grant performance-based restricted stock awards to its executive officers under the company's 2005 Stock Incentive Plan. Readers should note that these are forms of agreement only and particular agreements with executive officers and directors may contain terms that differ but not in material respects.

RESTRICTED STOCK AWARD AGREEMENT

Name of Grantee (the "Grantee"): _____

Date of Restricted Stock Award (the "Award Date"): _____

Number of Shares Covered by Restricted Stock Award (the "Award Shares"): _____

This Restricted Stock Award Agreement (this "Agreement") is entered into effective on the Date of Restricted Stock Award set forth above (the "Award Date") by and between CSG SYSTEMS INTERNATIONAL, INC., a Delaware corporation (the "Company"), and the Grantee named above (the "Grantee").

* * *

WHEREAS, the Company has adopted the Amended and Restated 2005 Stock Incentive Plan (the "Plan") which is administered by the Compensation Committee of the Board of Directors of the Company (the "Committee"); and

WHEREAS, pursuant to the Plan, effective on the Award Date the Company granted to Grantee a Restricted Stock Award (the "Award") covering the number of shares of the Common Stock of the Company (the "Common Stock") set forth above (the "Award Shares"), and the Company is executing this Agreement with Grantee for the purpose of setting forth the terms and conditions of the Award made by the Committee to Grantee effective on the Award Date;

NOW, THEREFORE, in consideration of the premises and the covenants and conditions contained herein, the Company and Grantee agree as follows:

1. Award of Restricted Shares.

- (a) The Company hereby confirms the grant of the Award to Grantee as of the Award Date. The Award is subject to all of the terms and conditions of this Agreement.
- (b) Promptly after the execution of this Agreement, the Company will cause the transfer agent for the Common Stock or other third-party Plan record keeper designated by the Company (the "Transfer Agent") to (i) either establish a separate account in its records in the name of Grantee (the "Restricted Stock Account") and credit the Award Shares to the Restricted Stock Account as of the Award Date or credit the Award Shares to a previously existing Restricted Stock

Account of Grantee as of the Award Date and (ii) confirm such actions to Grantee electronically or in writing.

2. Vesting of Award Shares.

(a) Twenty-five percent (25%) of the Award Shares (rounded to the nearest whole number) automatically will vest in Grantee on each of the first four (4) anniversaries of the Award Date (each such anniversary being referred to in this Agreement as a “Vesting Date”); however, except as otherwise provided in Section 15, no Award Shares will vest in Grantee on a particular Vesting Date unless Grantee has been continuously employed by the Company from the Award Date until such Vesting Date.

(b) After Grantee has become vested in any of the Award Shares and, if applicable, after the cancellation of certain of the Award Shares as provided for in Section 12(b) has occurred, the Company will instruct the Transfer Agent to remove all restrictions on the transfer, assignment, pledge, encumbrance, or other disposition of the then remaining vested Award Shares in the Restricted Stock Account. Grantee thereafter may dispose of such remaining vested Award Shares in Grantee's sole discretion, subject to compliance with securities and other applicable laws and Company policies with respect to dispositions of Company stock, and may request the Transfer Agent to electronically transfer such remaining vested Award Shares to an account designated by Grantee free of any restrictions, subject to any applicable administrative requirements of the Transfer Agent.

3. Employment.

Nothing contained in this Agreement (i) obligates the Company or a Subsidiary to continue to employ Grantee in any capacity whatsoever or (ii) prohibits or restricts the Company or a Subsidiary from terminating the employment of Grantee at any time or for any reason whatsoever. In the event of a Termination of Employment of Grantee, Grantee will have only the rights set forth in this Agreement with respect to the Award Shares. For purposes of this Agreement, a “Termination of Employment” of Grantee means the effective time when the employer-employee relationship between Grantee and the Company terminates for any reason whatsoever. In determining the existence of continuous employment of Grantee by the Company or the existence of an employer-employee relationship between Grantee and the Company for purposes of this Agreement, the term “Company” will include a Subsidiary (as defined in the Plan); and neither a transfer of Grantee from the employ of the Company to the employ of a Subsidiary nor the transfer of Grantee from the employ of a Subsidiary to the employ of the Company or another Subsidiary will be deemed to be a Termination of Employment of Grantee.

4. Cancellation of Unvested Award Shares.

Subject to the provisions of Section 15, if applicable, upon a Termination of Employment of Grantee, all of the rights and interests of Grantee in any of the Award Shares which have not vested in Grantee pursuant to Section 2 prior to such Termination of Employment of Grantee automatically will completely and forever terminate; and, at the direction of the Company,

the Transfer Agent will remove from the Restricted Stock Account and cancel all of those unvested Award Shares.

5. Dividends and Changes in Capitalization.

If at any time that any of the Award Shares have not vested in Grantee the Company declares or pays any ordinary cash dividend, any non-cash dividend of securities or other property or rights to acquire securities or other property, any liquidating dividend of cash or property, or any stock dividend or there occurs any stock split or other change in the character or amount of any of the outstanding securities of the Company, then in such event any and all cash and new, substituted, or additional securities or other property relating or attributable to those unvested Award Shares immediately and automatically will become subject to this Agreement, will be delivered to the Transfer Agent or to an independent Escrow Agent selected by the Company to be held by the Transfer Agent or such Escrow Agent pursuant to the terms of this Agreement (including but not limited to the provisions of Sections 2, 4, and 8), and will have the same status with respect to vesting and transfer as the unvested Award Shares upon which such dividend was paid or with respect to which such new, substituted, or additional securities or other property was distributed. No interest will accrue on any cash or cash equivalents received by the Transfer Agent or such Escrow Agent pursuant to the first sentence of this Section 5. Grantee and the Company agree that the provisions of this Section 5 amend, supersede and/or replace any conflicting provisions contained in any Restricted Stock Award Agreements between the Company and Grantee covering Restricted Stock Awards previously granted to Grantee by the Company.

6. Representations of Grantee.

Grantee hereby represents and warrants to the Company as follows:

- (a) Grantee has full legal power, authority, and capacity to execute and deliver this Agreement and to perform Grantee's obligations under this Agreement; and this Agreement is a valid and binding obligation of Grantee, enforceable in accordance with its terms, except that the enforcement of this Agreement may be subject to bankruptcy, insolvency, reorganization, moratorium, or other similar laws now or hereafter in effect relating to creditors' rights generally and to general principles of equity (regardless of whether such enforcement is considered in a proceeding in equity or at law).
- (b) Grantee is aware of the public availability on the Internet at www.sec.gov of the Company's periodic and other filings made with the United States Securities and Exchange Commission.
- (c) Grantee has received a copy of the Plan.

7. Representations and Warranties of the Company.

The Company hereby represents and warrants to Grantee as follows:

- (a) The Company is a corporation duly organized, validly existing, and in good standing under the laws of Delaware and has all requisite corporate power and authority to enter into this Agreement, to issue the Award Shares to Grantee, and to perform its obligations under this Agreement.
- (b) The execution and delivery of this Agreement by the Company have been duly and validly authorized; and all necessary corporate action has been taken to make this Agreement a valid and binding obligation of the Company, enforceable in accordance with its terms, except that the enforcement of this Agreement may be subject to bankruptcy, insolvency, reorganization, moratorium, or other similar laws now or hereafter in effect relating to creditors' rights generally and to general principles of equity (regardless of whether such enforcement is considered in a proceeding in equity or at law).
- (c) When issued to Grantee as provided for in this Agreement, the Award Shares will be duly and validly issued, fully paid, and non-assessable.

8. Restriction on Sale or Transfer of Award Shares.

None of the Award Shares that have not vested in Grantee pursuant to Section 2 (and no beneficial interest in any of such Award Shares) may be sold, transferred, assigned, pledged, encumbered, or otherwise disposed of in any way by anyone (including a transfer by operation of law); and any attempt to make any such sale, transfer, assignment, pledge, encumbrance, or other disposition will be null and void and of no effect.

9. Enforcement.

The Company and Grantee acknowledge that the Company's remedy at law for any breach or violation or attempted breach or violation of the provisions of Section 8 will be inadequate and that, in the event of any such breach or violation or attempted breach or violation, the Company will be entitled to injunctive relief in addition to any other remedy, at law or in equity, to which the Company may be entitled.

10. Violation of Transfer Provisions.

Neither the Company nor the Transfer Agent will be required to transfer on the stock records of the Company maintained by either of them any Award Shares which have been sold, transferred, assigned, pledged, encumbered, or otherwise disposed of by anyone in violation of any of the provisions of this Agreement or to treat as the owner of such Award Shares or accord the right to vote or receive dividends to any purported transferee or pledgee to whom such Award Shares have been sold, transferred, assigned, pledged, encumbered, or otherwise disposed of in violation of any of the provisions of this Agreement.

11. Section 83(b) Election.

Grantee has the right to make an election pursuant to Treasury Regulation § 1.83-2 with respect to the Award Shares and, if Grantee makes such election, promptly will furnish to the Company a copy of the form of election Grantee has filed with the Internal Revenue Service for such purpose and evidence that such an election has been made in a timely manner.

12. Withholding.

(a) Upon Grantee's making of the election referred to in Section 11 with respect to any of the Award Shares, Grantee will pay to or provide for the payment to or withholding by the Company of all amounts which the Company is required to withhold from Grantee's compensation for federal, state, or local tax purposes by reason of or in connection with such election. Notwithstanding any provision of this Agreement to the contrary, neither the Company nor the Transfer Agent shall be obligated to release from the Restricted Stock Account any of the Award Shares with respect to which Grantee has made such election and which have vested in Grantee until Grantee's obligations under this Section 12 have been satisfied.

(b) Upon the vesting in Grantee of any of the Award Shares as to which the election referred to in Section 11 was not made by Grantee, the Company will compute as of the applicable vesting date the amounts which the Company is required to withhold from Grantee's compensation for federal, state, or local tax purposes by reason of or in connection with such vesting, based upon the Fair Market Value (as defined in the Plan) of those Award Shares. After making such computation, the Company will direct the Transfer Agent to remove from the Restricted Stock Account and cancel that number of the Award Shares whose Fair Market Value (as defined in the Plan) as of the applicable vesting date is equal to the aggregate of such amounts required to be withheld by the Company; provided, that for such purpose the number of Award Shares to be removed from the Restricted Stock Account and cancelled will be rounded up to the nearest whole Award Share. After the actions prescribed by the preceding provisions of this Section 12(b) have been taken, the Company when required by law to do so will pay to the applicable tax authorities in cash the amounts required to have been withheld from Grantee's compensation by reason of or in connection with the vesting referred to in the first sentence of this Section 12(b), with any excess amount resulting from such rounding being treated as federal income tax withholding; and Grantee will have (i) no further obligation with respect to such amounts required to be withheld and (ii) no further rights or interests in the Award Shares withdrawn from the Restricted Stock Account and cancelled pursuant to this Section 12(b), unless the Company has miscomputed such amounts or the number of such Award Shares.

13. Voting and Other Stockholder Rights.

Grantee will have the right to vote with respect to all of the Award Shares which are outstanding and credited to the Restricted Stock Account as of a record date for determining stockholders of the Company entitled to vote, whether or not such Award Shares are vested in Grantee as of such record date. Except as expressly limited or restricted by this Agreement and except as otherwise provided in this Agreement, Grantee will have all of the other rights of a stockholder of the Company with respect to all of the Award Shares which are outstanding and

credited to the Restricted Stock Account at a particular time, whether or not such Award Shares are vested in Grantee at such time.

14. Application of Plan.

The relevant provisions of the Plan relating to Restricted Stock Awards and the authority of the Committee under the Plan will be applicable to this Agreement to the extent that this Agreement does not otherwise expressly address the subject matter of such provisions.

15. Change of Control.

(a) Notwithstanding the provisions of Sections 2 and 4, all Award Shares which have not previously vested in Grantee pursuant to Section 2 automatically will vest in Grantee upon an involuntary (on the part of Grantee) Termination of Employment of Grantee without Cause after the occurrence of a Change of Control.

(b) For purposes of this Agreement, a "Change of Control" will be deemed to have occurred upon the happening of any of the following events:

- (i) The Company is merged or consolidated into another corporation or entity, and immediately after such merger or consolidation becomes effective the holders of a majority of the outstanding shares of voting capital stock of the Company immediately prior to the effectiveness of such merger or consolidation do not own (directly or indirectly) a majority of the outstanding shares of voting capital stock or other equity interests having voting rights of the surviving or resulting corporation or other entity in such merger or consolidation;
- (ii) any person, entity, or group of persons within the meaning of Sections 13(d) or 14(d) of the Securities Exchange Act of 1934 (the "1934 Act") and the rules promulgated thereunder becomes the beneficial owner (within the meaning of Rule 13d-3 under the 1934 Act) of thirty percent (30%) or more of the outstanding voting capital stock of the Company;
- (iii) the Common Stock of the Company ceases to be publicly traded because of an issuer tender offer or other "going private" transaction (other than a transaction sponsored by the then current management of the Company);
- (iv) the Company dissolves or sells or otherwise disposes

of all or substantially all of its property and assets (other than to an entity or group of entities which is then under common majority ownership (directly or indirectly) with the Company);

- (v) in one or more substantially concurrent transactions or in a series of related transactions, the Company directly or indirectly disposes of a portion or portions of its business operations (collectively, the "Sold Business") other than by ceasing to conduct the Sold Business without its being acquired by a third party (regardless of the entity or entities through which the Company conducted the Sold Business and regardless of whether such disposition is accomplished through a sale of assets, the transfer of ownership of an entity or entities, a merger, or in some other manner) and either (i) the fair market value of the consideration received or to be received by the Company for the Sold Business is equal to at least fifty percent (50%) of the market value of the outstanding Common Stock of the Company determined by multiplying the average of the closing prices for the Common Stock of the Company on the thirty (30) trading days immediately preceding the date of the first public announcement of the proposed disposition of the Sold Business by the average of the numbers of outstanding shares of Common Stock on such thirty (30) trading days or (ii) the revenues of the Sold Business during the most recent four (4) calendar quarters ended prior to the first public announcement of the proposed disposition of the Sold Business represented fifty percent (50%) or more of the total consolidated revenues of the Company during such four (4) calendar quarters; or
- (6) during any period of two consecutive years or less, individuals who at the beginning of such period constituted the Board of Directors of the Company cease, for any reason, to constitute at least a majority of the Board of Directors of the Company, unless the election or nomination for election of each new director of the Company who took office during such period was approved by a vote of at least seventy-five percent (75%) of the directors of the Company still in office at the time of such election or

nomination for election who were directors of the Company at the beginning of such period.

(c) Definition of "Cause". For purposes of this agreement, "Cause" will mean only (i) Grantee's confession or conviction of theft, fraud, embezzlement, or other crime involving dishonesty, (ii) Grantee's certification of materially inaccurate financial or other information pertaining to the Company or a Subsidiary (as defined in the Plan) with actual knowledge of such inaccuracies on the part of Grantee, (iii) Grantee's refusal or willful failure to cooperate with an investigation by a governmental agency pertaining to the financial or other business affairs of the Company or a Subsidiary (as defined in the Plan) unless such refusal or willful failure is based upon a written direction of the Board or the written advice of counsel, (iv) Grantee's excessive absenteeism (other than by reason of physical injury, disease, or mental illness) without a reasonable justification and failure on the part of Grantee to cure such absenteeism within twenty (20) days after Grantee's receipt of a written notice from the Board or the Chief Executive officer of the Company setting forth the particulars of such absenteeism, (v) material failure by Grantee to comply with a lawful directive of the Board or the Chief Executive Officer of the Company and failure to cure such non-compliance within twenty (20) days after Grantee's receipt of a written notice from the Board or the Chief Executive Officer of the Company setting forth in reasonable detail the particulars of such non-compliance, (vi) a material breach by Grantee of any of Grantee's fiduciary duties to the Company or a Subsidiary (as defined in the Plan) and, if such breach is curable, Grantee's failure to cure such breach within twenty (20) days after Grantee's receipt of a written notice from the Board or the Chief Executive Officer of the Company setting forth in reasonable detail the particulars of such breach, (vii) willful misconduct or fraud on the part of Grantee in the performance of his duties as an employee of the Company or a Subsidiary (as defined in the Plan), or (viii) any other "cause" as defined in any existing employment agreement between the Company and Grantee.

(d) Grantee acknowledges that Grantee has an Employment Agreement with the Company that is in full force and effect. That Employment Agreement contains provisions which specify certain limitations on the economic and other benefits that may be conferred upon Grantee upon a termination of employment (under certain conditions) after a Change in Control of the Company. More specifically, the Employment Agreement provides for the limitation of payments (including but not limited to the vesting of unvested Award Shares) that would result in the imposition of a tax under Section 4999 of the Internal Revenue Code of 1986, as amended (the "Code"), on "excess parachute payments" (as defined in Section 280G of the Code) received or receivable by Grantee, all as further defined in the Employment Agreement. Grantee agrees that any acceleration of vesting of Award Shares pursuant to this Section 15 is strictly governed by and subject to the provisions of the Employment Agreement relating to Restricted Stock Award Adjustments and that some or all unvested Award Shares that would otherwise vest upon a qualifying termination after a Change in Control may not vest.

(e) If the employment of Grantee by the Company terminates without Cause after a Change of Control as a result of a Constructive Termination, as defined in a then existing employment agreement (if any) between the Company and Grantee, and all preconditions to the effectiveness of such a Constructive Termination contained in such then existing employment

agreement (if any) have been satisfied, then for purposes of Section 15(a) such termination of Grantee's employment will be deemed to be "a n involuntary (on the part of Grantee) Termination of Employment of Grantee without Cause after the occurrence of a Change of Control", and the provisions of Section 15(a) will apply.

16. General Provisions.

- (a) No Assignments. Grantee may not sell, transfer, assign, pledge, encumber, or otherwise dispose of any of Grantee's rights or obligations under this Agreement without the prior written consent of the Company; and any such attempted sale, transfer, assignment, pledge, encumbrance, or other disposition will be void.
- (b) Notices. All notices, requests, consents, and other communications required or permitted under this Agreement must be in writing and will be deemed to have been duly given and made upon personal delivery to the person for whom such item is intended (including by a reputable overnight delivery service which will be deemed to have effected personal delivery) or upon deposit, postage prepaid, registered or certified mail, return receipt requested, in the United States mail as follows:
 - (i) if to Grantee, addressed to Grantee at Grantee's address shown on the stockholder records maintained by the Transfer Agent or at such other address as Grantee may specify by written notice to the Transfer Agent, or
 - (ii) if to the Company, addressed to the Chief Financial Officer of the Company at the principal office of the Company or at such other address as the Company may specify by written notice to Grantee.

Each such notice, request, consent, and other communication will be deemed to have been given upon receipt thereof as set forth above or, if sooner, three (3) business days after deposit as described above. An address for purposes of this Section 16(b) may be changed by giving written notice of such change in the manner provided in this Section 16(b) for giving notice. Unless and until such written notice is received, the addresses referred to in this Section 16(b) will be deemed to continue in effect for all purposes of this Agreement.

- (c) Choice of Law. This Agreement will be governed by and construed in accordance with the internal laws, and not the laws of conflicts of laws, of the State of Delaware.
- (d) Severability. The Company and Grantee agree that the provisions of this Agreement are reasonable and will be binding and enforceable in accordance with their terms and, in any event, that the provisions of this Agreement will be enforced to the fullest extent permitted by law. If any provision of this Agreement for any reason is adjudged to be unenforceable or invalid, then such unenforceable or invalid provision will not affect the enforceability or validity of the remaining provisions of this Agreement, and the Company and Grantee agree to replace such unenforceable or invalid provision with an enforceable and valid arrangement which in its economic effect will be as close as possible to the unenforceable or invalid provision.

- (e) Parties in Interest. All of the terms and provisions of this Agreement will be binding upon, inure to the benefit of, and be enforceable by the respective heirs, personal representatives, successors, and assigns of the Company and Grantee; provided, that the provisions of this Section 16(e) shall not authorize any sale, transfer, assignment, pledge, encumbrance, or other disposition of the Award Shares which is otherwise prohibited by this Agreement.
- (f) Modification, Amendment, and Waiver. No modification, amendment, or waiver of any provision of this Agreement will be effective against the Company or Grantee unless such modification, amendment, or waiver (i) is in writing, (ii) is signed by the party sought to be bound by such modification, amendment, or waiver, (iii) states that it is intended to modify, amend, or waive a specific provision of this Agreement, and (iv) in the case of the Company, has been authorized by the Committee. However, Grantee acknowledges and agrees that the Committee, in the exercise of its sole discretion and without Grantee's consent, may modify or amend this Agreement in any manner and delay either the payment of any amounts payable pursuant to this Agreement or the release of any Award Shares which have vested pursuant to this Agreement to the minimum extent necessary to satisfy the requirements of Section 409A of the Code; and the Company will provide Grantee with notice of any such modification or amendment. The failure of the Company or Grantee at any time to enforce any of the provisions of this Agreement is not to be construed as a waiver of such provisions and will not affect the right of the Company or Grantee thereafter to enforce each and every provision of this Agreement in accordance with its terms.
- (g) Integration. This Agreement constitutes the entire agreement of the Company and Grantee with respect to the subject matter of this Agreement and supersedes all prior negotiations, understandings, and agreements, written or oral, with respect to such subject matter.
- (h) Headings. The headings of the sections and paragraphs of this Agreement have been inserted for convenience of reference only and do not constitute a part of this Agreement.
- (i) Counterparts. This Agreement may be executed in counterparts with the same effect as if both the Company and Grantee had signed the same document. All such counterparts will be deemed to be an original, will be construed together, and will constitute one and the same instrument.
- (j) Further Assurances. The Company and Grantee agree to use their best efforts and act in good faith in carrying out their obligations under this Agreement. The Company and Grantee also agree to execute and deliver such additional documents and to take such further actions as reasonably may be necessary or desirable to carry out the purposes and intent of this Agreement.

IN WITNESS WHEREOF, the Company and Grantee have executed this Restricted Stock Award Agreement on the dates set forth below, effective on the Award Date.

COMPANY: GRANTEE:

CSG SYSTEMS INTERNATIONAL, INC.,
a Delaware corporation

By: Date:
Title: President and Chief Executive Officer

Date:

This exhibit contains forms of agreements used by the company to grant performance-based restricted stock awards to its executive officers under the company's 2005 Stock Incentive Plan. Readers should note that these are forms of agreement only and particular agreements with executive officers and directors may contain terms that differ but not in material respects.

RESTRICTED STOCK AWARD AGREEMENT

Name of Grantee (the "Grantee"): _____

Date of Restricted Stock Award (the "Award Date"): _____

Number of Shares Covered by Restricted Stock Award (the "Award Shares"): _____

This Restricted Stock Award Agreement (this "Agreement") is entered into effective on the Date of Restricted Stock Award set forth above (the "Award Date") by and between CSG SYSTEMS INTERNATIONAL, INC., a Delaware corporation (the "Company"), and the Grantee named above (the "Grantee").

* * *

WHEREAS, the Company has adopted an Amended and Restated 2005 Stock Incentive Plan (the "Plan") which is administered by the Compensation Committee of the Board of Directors of the Company (the "Committee"); and

WHEREAS, pursuant to the Plan, effective on the Award Date the Committee granted to Grantee a Restricted Stock Award (the "Award") covering the number of shares of the Common Stock of the Company (the "Common Stock") set forth above (the "Award Shares"), and the Company is executing this Agreement with Grantee for the purpose of setting forth the terms and conditions of the Award made by the Committee to Grantee effective on the Award Date;

NOW, THEREFORE, in consideration of the premises and the covenants and conditions contained herein, the Company and Grantee agree as follows:

1. Award of Restricted Shares.

- (a) The Company hereby confirms the grant of the Award to Grantee effective on the Award Date. The Award is subject to all of the terms and conditions of this Agreement.
- (b) Promptly after the execution of this Agreement, the Company will cause the transfer agent for the Common Stock or other third-party Plan record keeper designated by the Company (the "Transfer Agent") to (i) either establish a separate account in its records in the name of Grantee (the "Restricted Stock Account") and credit the Award Shares to the Restricted Stock Account as of the Award Date or credit the Award Shares to a previously existing Restricted Stock

Account of Grantee as of the Award Date and (ii) confirm such actions to Grantee electronically or in writing .

2. Vesting of Award Shares.

(a) For purposes of this Agreement, “Performance Period” means the X-fiscal-year period beginning on January 1, 20XX and ending on December 31, 20XX.

(b) Subject to Section 15, if applicable, the Award Shares will vest, if at all, based on the following metrics of performance for the Company’s fiscal year ended December 31, 20XX (“Performance Goals”):

- (i) xxx shares [XX%] will vest based on the Company’s achievement of a threshold level of earnings per share and achievement of specified levels of total revenue in accordance with Exhibit 1 (together, referred to as “Company Enterprise Financial Measures”);
- (ii) xxx shares [XX%] will vest based on specified levels of revenue for the Company’s XXXXXXXX product family in accordance with Exhibit 2 (“XXXXXXXX Revenue Measure”); and
- (iii) xx shares [XX%] will vest based on specified levels of improvement in operational performance as measured by XXXXXX XXXXXXXX in accordance with Exhibit 3 (“Company XXXXXX XXXXXXXX Measure”).

(c) (i)As soon as practicable after the end of the Performance Period, the Committee shall review and approve/certify the level of the Performance Goals achieved, and determine the corresponding vesting levels of the Award Shares as described in Exhibits 1, 2, and 3. The Committee may, in its sole discretion, determine whether any adjustments to the vesting levels determined in accordance with Exhibits 1, 2, and 3 are appropriate for any unusual or unique circumstances that occurred during the Performance Period.

Subject to Section 15, no Award Shares will vest in Grantee (i) unless and until the Committee has reviewed and approved/certified the vesting levels for the Award Shares, and (ii) unless Grantee has been continuously employed by the Company from the Award Date through the date of the applicable Committee approval/certification.

- (ii) After Grantee has become vested in any of the Award Shares and, if applicable, after the cancellation of certain of the Award Shares as provided for in Section 12(b) has occurred,

the Company will instruct the Transfer Agent to remove all restrictions on the transfer, assignment, pledge, encumbrance, or other disposition of the then remaining vested Award Shares in the Restricted Stock Account. Grantee thereafter may dispose of such remaining vested Award Shares in Grantee's sole discretion, subject to compliance with securities and other applicable laws and Company policies with respect to dispositions of Company stock, and may request the Transfer Agent to electronically transfer such remaining vested Award Shares to an account designated by Grantee free of any restrictions, subject to any applicable administrative requirements of the Transfer Agent.

3. Employment.

Nothing contained in this Agreement (i) obligates the Company or a Subsidiary to continue to employ Grantee in any capacity whatsoever or (ii) prohibits or restricts the Company or a Subsidiary from terminating the employment of Grantee at any time or for any reason whatsoever. In the event of a Termination of Employment of Grantee, Grantee will have only the rights set forth in this Agreement with respect to the Award Shares. For purposes of this Agreement, a "Termination of Employment" of Grantee means the effective time when the employer-employee relationship between Grantee and the Company terminates for any reason whatsoever. In determining the existence of continuous employment of Grantee by the Company or the existence of an employer-employee relationship between Grantee and the Company for purposes of this Agreement, the term "Company" will include a Subsidiary (as defined in the Plan); and neither a transfer of Grantee from the employ of the Company to the employ of a Subsidiary nor the transfer of Grantee from the employ of a Subsidiary to the employ of the Company or another Subsidiary will be deemed to be a Termination of Employment of Grantee.

4. Cancellation of Unvested Award Shares .

Subject to the provisions of Section 15, if applicable, upon a Termination of Employment of Grantee, all of the rights and interests of Grantee in any of the Award Shares which have not vested in Grantee pursuant to Section 2 prior to such Termination of Employment of Grantee automatically will completely and forever terminate; and, at the direction of the Company, the Transfer Agent will remove from the Restricted Stock Account and cancel all of those unvested Award Shares.

5. Dividends and Changes in Capitalization.

If at any time that any of the Award Shares have not vested in Grantee the Company declares or pays any ordinary cash dividend, any non-cash dividend of securities or other property or rights to acquire securities or other property, any liquidating dividend of cash or property, or any stock dividend or there occurs any stock split or other change in the character or amount of

any of the outstanding securities of the Company, then in such event any and all cash and new, substituted, or additional securities or other property relating or attributable to those unvested Award Shares immediately and automatically will become subject to this Agreement, will be delivered to the Transfer Agent or to an independent Escrow Agent selected by the Company to be held by the Transfer Agent or such Escrow Agent pursuant to the terms of this Agreement (including but not limited to the provisions of Sections 2, 4, and 8), and will have the same status with respect to vesting and transfer as the unvested Award Shares upon which such dividend was paid or with respect to which such new, substituted, or additional securities or other property was distributed. No interest will accrue on any cash or cash equivalents received by the Transfer Agent or such Escrow Agent pursuant to the first sentence of this Section 5. Grantee and the Company agree that the provisions of this Section 5 amend, supersede and/or replace any conflicting provisions contained in any Restricted Stock Award Agreements between the Company and Grantee covering Restricted Stock Awards previously granted to Grantee by the Company.

6. Representations of Grantee.

Grantee represents and warrants to the Company as follows:

- (a) Grantee has full legal power, authority, and capacity to execute and deliver this Agreement and to perform Grantee's obligations under this Agreement; and this Agreement is a valid and binding obligation of Grantee, enforceable in accordance with its terms, except that the enforcement of this Agreement may be subject to bankruptcy, insolvency, reorganization, moratorium, or other similar laws now or hereafter in effect relating to creditors' rights generally and to general principles of equity (regardless of whether such enforcement is considered in a proceeding in equity or at law).
- (b) Grantee is aware of the public availability on the Internet at www.sec.gov of the Company's periodic and other filings made with the United States Securities and Exchange Commission.
- (c) Grantee has received a copy of the Plan.

7. Representations and Warranties of the Company.

The Company represents and warrants to Grantee as follows:

- (a) The Company is a corporation duly organized, validly existing, and in good standing under the laws of Delaware and has all requisite corporate power and authority to enter into this Agreement, to issue the Award Shares to Grantee, and to perform its obligations under this Agreement.
- (b) The execution and delivery of this Agreement by the Company have been duly and validly authorized by the Committee; and all necessary corporate action has been taken to make this Agreement a valid and binding obligation of the Company, enforceable in accordance with its terms, except that the enforcement of this Agreement may be subject to bankruptcy, insolvency, reorganization, moratorium, or other similar laws now or hereafter in effect relating to

creditors' rights generally and to general principles of equity (regardless of whether such enforcement is considered in a proceeding in equity or at law).

- (c) When issued to Grantee as provided for in this Agreement, the Award Shares will be duly and validly issued, fully paid, and non-assessable.

8. Restriction on Sale or Transfer of Award Shares.

None of the Award Shares that have not vested in Grantee pursuant to Section 2 (and no beneficial interest in any of such Award Shares) may be sold, transferred, assigned, pledged, encumbered, or otherwise disposed of in any way by anyone (including a transfer by operation of law); and any attempt by anyone to make any such sale, transfer, assignment, pledge, encumbrance, or other disposition will be null and void and of no effect.

9. Enforcement.

The Company and Grantee acknowledge that the Company's remedy at law for any breach or violation or attempted breach or violation of the provisions of Section 8 will be inadequate and that, in the event of any such breach or violation or attempted breach or violation, the Company will be entitled to injunctive relief in addition to any other remedy, at law or in equity, to which the Company may be entitled.

10. Violation of Transfer Provisions.

Neither the Company nor the Transfer Agent will be required to transfer on the stock records of the Company maintained by either of them any Award Shares which have been sold, transferred, assigned, pledged, encumbered, or otherwise disposed of by anyone in violation of any of the provisions of this Agreement or to treat as the owner of such Award Shares or accord the right to vote or receive dividends to any purported transferee or pledgee to whom such Award Shares have been sold, transferred, assigned, pledged, encumbered, or otherwise disposed of in violation of any of the provisions of this Agreement.

11. Section 83(b) Election.

Grantee has the right to make an election pursuant to Treasury Regulation § 1.83-2 with respect to the Award Shares and, if Grantee makes such election, promptly will furnish to the Company a copy of the form of election Grantee has filed with the Internal Revenue Service for such purpose and evidence that such an election has been made in a timely manner.

12. Withholding.

- (a) Upon Grantee's making of the election referred to in Section 11 with respect to any of the Award Shares, Grantee will pay to or provide for the payment to or withholding by the Company of all amounts which the Company is required to withhold from Grantee's compensation for federal, state, or local tax purposes by reason of or in connection with such election. Notwithstanding any provision of this Agreement to the contrary, neither the Company

nor the Transfer Agent will be obligated to release from the Restricted Stock Account any of the Award Shares with respect to which Grantee has made such election and which have vested in Grantee until Grantee's obligations under this Section 12 have been satisfied.

- (b) Upon the vesting in Grantee of any of the Award Shares as to which the election referred to in Section 11 was not made by Grantee, the Company will compute as of the applicable vesting date the amounts which the Company is required to withhold from Grantee's compensation for federal, state, and local tax purposes by reason of or in connection with such vesting, based upon the Fair Market Value (as defined in the Plan) of those Award Shares. After making such computation, the Company will direct the Transfer Agent to remove from the Restricted Stock Account and cancel that number of the Award Shares whose Fair Market Value (as defined in the Plan) as of the applicable vesting date is equal to the aggregate of such amounts required to be withheld by the Company; provided, that for such purpose the number of Award Shares to be removed from the Restricted Stock Account and cancelled will be rounded up to the nearest whole Award Share. After the actions prescribed by the preceding provisions of this Section 12(b) have been taken, the Company when required by law to do so will pay to the applicable tax authorities in cash the amounts required to have been withheld from Grantee's compensation by reason of or in connection with the vesting referred to in the first sentence of this Section 12(b), with any excess amount resulting from such rounding being treated as federal income tax withholding; and Grantee will have (i) no further obligation with respect to such amounts required to be withheld and (ii) no further rights or interests in the Award Shares withdrawn from the Restricted Stock Account and cancelled pursuant to this Section 12(b), unless the Company has miscomputed such amounts or the number of such Award Shares.

13. Voting and Other Stockholder Rights.

Grantee will have the right to vote with respect to all of the Award Shares which are outstanding and credited to the Restricted Stock Account as of a record date for determining stockholders of the Company entitled to vote, whether or not such Award Shares are vested in Grantee as of such record date. Except as expressly limited or restricted by this Agreement and except as otherwise provided in this Agreement, Grantee will have all of the other rights of a stockholder of the Company with respect to all of the Award Shares which are outstanding and credited to the Restricted Stock Account at a particular time, whether or not such Award Shares are vested in Grantee at such time.

14. Application of Plan.

The relevant provisions of the Plan relating to Restricted Stock Awards and the authority of the Committee under the Plan will be applicable to this Agreement to the extent that this Agreement does not otherwise expressly address the subject matter of such provisions.

15. Change of Control.

- (a) Notwithstanding the provisions of Sections 2 and 4, all Award Shares which have not previously vested in Grantee pursuant to Section 2 automatically will vest in Grantee

upon an involuntary (on the part of Grantee) Termination of Employment of Grantee without Cause after the occurrence of a Change of Control.

(b) For purposes of this Agreement, a “Change of Control” will be deemed to have occurred upon the happening of any of the following events:

- (i) The Company is merged or consolidated into another corporation or entity, and immediately after such merger or consolidation becomes effective, the holders of a majority of the outstanding shares of voting capital stock of the Company immediately prior to the effectiveness of such merger or consolidation do not own (directly or indirectly) a majority of the outstanding shares of voting capital stock or other equity interests having voting rights of the surviving or resulting corporation or other entity in such merger or consolidation;
- (ii) any person, entity, or group of persons within the meaning of Sections 13(d) or 14(d) of the Securities Exchange Act of 1934 (the “1934 Act”) and the rules promulgated thereunder becomes the beneficial owner (within the meaning of Rule 13d-3 under the 1934 Act) of thirty percent (30%) or more of the outstanding voting capital stock of the Company;
- (iii) the Common Stock of the Company ceases to be publicly traded because of an issuer tender offer or other “going private” transaction (other than a transaction sponsored by the then current management of the Company);
- (iv) the Company dissolves or sells or otherwise disposes of all or substantially all of its property and assets (other than to an entity or group of entities which is then under common majority ownership (directly or indirectly) with the Company);
- (v) in one or more substantially concurrent transactions or in a series of related transactions, the Company directly or indirectly disposes of a portion or portions of its business operations (collectively, the “Sold Business”) other than by ceasing to conduct the Sold Business without its being acquired by a third party (regardless of the entity or entities through which the Company conducted the Sold Business and regardless of whether such disposition is accomplished through a sale of assets, the transfer of ownership of an entity or entities, a merger, or in some other manner) and either (i) the fair market value of the consideration received or to be received by the Company for the Sold Business is equal to at least fifty percent (50%) of the market value of the outstanding Common Stock of the Company

determined by multiplying the average of the closing prices for the Common Stock of the Company on the thirty (30) trading days immediately preceding the date of the first public announcement of the proposed disposition of the Sold Business by the average of the numbers of outstanding shares of Common Stock on such thirty (30) trading days or (ii) the revenues of the Sold Business during the most recent four (4) calendar quarters ended prior to the first public announcement of the proposed disposition of the Sold Business represented fifty percent (50%) or more of the total consolidated revenues of the Company during such four (4) calendar quarters; or

- (vi) during any period of two consecutive years or less, individuals who at the beginning of such period constituted the Board of Directors of the Company cease, for any reason, to constitute at least a majority of the Board of Directors of the Company, unless the election or nomination for election of each new director of the Company who took office during such period was approved by a vote of at least seventy-five percent (75%) of the directors of the Company still in office at the time of such election or nomination for election who were directors of the Company at the beginning of such period.

(c) Definition of "Cause". For purposes of this agreement, "Cause" will mean only (i) Grantee's confession, plea-bargain or conviction to charges of theft, fraud, embezzlement, or other crime involving dishonesty, (ii) Grantee's certification of materially inaccurate financial or other information pertaining to the Company or a Subsidiary (as defined in the Plan) with actual knowledge of such inaccuracies on the part of Grantee, (iii) Grantee's refusal or willful failure to cooperate with an investigation by a governmental agency pertaining to the financial or other business affairs of the Company or a Subsidiary (as defined in the Plan) unless such refusal or willful failure is based upon a written direction of the Board or the written advice of counsel, (iv) Grantee's excessive absenteeism (other than by reason of physical injury, disease, or mental illness) without a reasonable justification and failure on the part of Grantee to cure such absenteeism within twenty (20) days after Grantee's receipt of a written notice from the Board or the Chief Executive Officer of the Company setting forth the particulars of such absenteeism, (v) material failure by Grantee to comply with a lawful directive of the Board or the Chief Executive Officer of the Company and failure to cure such non-compliance within twenty (20) days after Grantee's receipt of a written notice from the Board or the Chief Executive Officer of the Company setting forth in reasonable detail the particulars of such non-compliance, (vi) a material breach by Grantee of any of Grantee's fiduciary duties to the Company or a Subsidiary (as defined in the Plan) and, if such breach is curable, Grantee's failure to cure such breach within twenty (20) days after Grantee's receipt of a written notice from the Board or the Chief Executive Officer of the Company setting forth in reasonable detail the particulars of such breach, (vii) willful misconduct or fraud on the part of Grantee in the performance of his duties as an employee of the Company or

a Subsidiary (as defined in the Plan), or (viii) any other “cause” as defined in any existing employment agreement between the Company and Grantee.

(d) Grantee acknowledges that Grantee has an Employment Agreement with the Company that is in full force and effect. That Employment Agreement contains provisions which specify certain limitations on the economic and other benefits that may be conferred upon Grantee upon a termination of employment (under certain conditions) after a Change in Control of the Company. More specifically, the Employment Agreement provides for the limitation of payments (including but not limited to the vesting of unvested Award Shares) that would result in the imposition of a tax under Section 4999 of the Internal Revenue Code of 1986, as amended (the “Code”), on “excess parachute payments” (as defined in Section 280G of the Code) received or receivable by Grantee, all as further defined in the Employment Agreement. Grantee agrees that any acceleration of vesting of Award Shares pursuant to this Section 15 is strictly governed by and subject to the provisions of the Employment Agreement relating to Restricted Stock Award Adjustments and that some or all unvested Award Shares that would otherwise vest upon a qualifying termination after a Change in Control may not vest.

(e) If the employment of Grantee by the Company terminates without Cause after a Change of Control as a result of a Constructive Termination, as defined in a then existing employment agreement (if any) between the Company and Grantee, and all preconditions to the effectiveness of such a Constructive Termination contained in such then existing employment agreement (if any) have been satisfied, then for purposes of Section 15(a) such termination of Grantee’s employment will be deemed to be “an involuntary (on the part of Grantee) Termination of Employment of Grantee without Cause after the occurrence of a Change of Control,” and the provisions of Section 15(a) will apply.

16. General Provisions.

- (a) No Assignments. Grantee may not sell, transfer, assign, pledge, encumber, or otherwise dispose of any of Grantee’s rights or obligations under this Agreement without the prior written consent of the Company; and any such attempted sale, transfer, assignment, pledge, encumbrance, or other disposition will be void.
- (b) Notices. All notices, requests, consents, and other communications required or permitted under this Agreement must be in writing and will be deemed to have been duly given and made upon personal delivery to the person for whom such item is intended (including by a reputable overnight delivery service which will be deemed to have effected personal delivery) or upon deposit, postage prepaid, registered or certified mail, return receipt requested, in the United States mail as follows:
- (i) if to Grantee, addressed to Grantee at Grantee’s address shown on the stockholder records maintained by the Transfer Agent or at such other address as Grantee may specify by written notice to the Transfer Agent, or

- (ii) if to the Company, addressed to the Chief Financial Officer of the Company at the principal office of the Company or at such other address as the Company may specify by written notice to Grantee.

Each such notice, request, consent, and other communication will be deemed to have been given upon receipt thereof as set forth above or, if sooner, three (3) business days after deposit as described above. An address for purposes of this Section 16(b) may be changed by giving written notice of such change in the manner provided in this Section 16(b) for giving notice. Unless and until such written notice is received, the addresses referred to in this Section 16(b) will continue in effect for all purposes of this Agreement.

- (c) Choice of Law. This Agreement will be governed by and construed in accordance with the internal laws, and not the laws of conflicts of laws, of the State of Delaware.
- (d) Severability. The Company and Grantee agree that the provisions of this Agreement are reasonable and will be binding and enforceable in accordance with their terms and, in any event, that the provisions of this Agreement will be enforced to the fullest extent permitted by law. If any provision of this Agreement for any reason is adjudged to be unenforceable or invalid, then such unenforceable or invalid provision will not affect the enforceability or validity of the remaining provisions of this Agreement, and the Company and Grantee agree to replace such unenforceable or invalid provision with an enforceable and valid arrangement which in its economic effect will be as close as possible to the intent of the unenforceable or invalid provision.
- (e) Parties in Interest. All of the terms and provisions of this Agreement will be binding upon, inure to the benefit of, and be enforceable by the respective heirs, personal representatives, successors, and assigns of the Company and Grantee; provided, that the provisions of this Section 16(e) do not authorize any sale, transfer, assignment, pledge, encumbrance, or other disposition of the Award Shares which is otherwise prohibited by this Agreement.
- (f) Modification, Amendment, and Waiver. No modification, amendment, or waiver of any provision of this Agreement will be effective against the Company or Grantee unless such modification, amendment, or waiver (i) is in writing, (ii) is signed by the party sought to be bound by such modification, amendment, or waiver, (iii) states that it is intended to modify, amend, or waive a specific provision of this Agreement, and (iv) in the case of the Company, has been authorized by the Committee. However, Grantee acknowledges and agrees that the Committee, in the exercise of its sole discretion and without Grantee's consent, may modify or amend this Agreement in any manner and delay either the payment of any amounts payable pursuant to this Agreement or the release of any Award Shares which have vested pursuant to this Agreement to the minimum extent necessary to satisfy the requirements of Section 409A of the Code; and the Company will provide Grantee with notice of any such modification or amendment. The failure of the Company or Grantee at any time to enforce any of the provisions of this Agreement is not to be construed as a waiver of such provisions and will not affect the right of the Company or Grantee thereafter to enforce each and every provision of this Agreement in accordance with its terms.

- (g) Integration. This Agreement constitutes the entire agreement of the Company and Grantee with respect to the subject matter of this Agreement and supersedes all prior negotiations, understandings, and agreements, written or oral, with respect to such subject matter.
- (h) Headings. The headings of the sections and paragraphs of this Agreement have been inserted for convenience of reference only and do not constitute a part of this Agreement.
- (i) Counterparts. This Agreement may be executed in counterparts with the same effect as if both the Company and Grantee had signed the same document. All such counterparts will be deemed to be an original, will be construed together, and will constitute one and the same instrument.
- (j) Further Assurances. The Company and Grantee agree to use their best efforts and act in good faith in carrying out their obligations under this Agreement. The Company and Grantee also agree to execute and deliver such additional documents and to take such further actions as reasonably may be necessary or desirable to carry out the purposes and intent of this Agreement.

IN WITNESS WHEREOF, the Company and Grantee have executed this Restricted Stock Award Agreement on the dates set forth below, effective on the Award Date.

COMPANY: GRANTEE:

CSG SYSTEMS INTERNATIONAL, INC.,
a Delaware corporation [Name]

By: _____
Title: President and Chief Executive Officer

Date: _____

Date: _____

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

I, Bret C. Griess, 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: August 3, 2018

/s/ Bret C. Griess

Bret C. Griess

President and Chief Executive Officer

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

I, Rolland B. Johns, 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: August 3, 2018

/s/ Rolland B. Johns

Rolland B. Johns

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.

Bret C. Griess, the Chief Executive Officer and Rolland B. Johns, 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.

August 3, 2018

/s/ Bret C. Griess

Bret C. Griess
President and Chief Executive Officer

August 3, 2018

/s/ Rolland B. Johns

Rolland B. Johns
Executive Vice President and Chief Financial Officer