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

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2019

Or

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

For the transition period from to

Commission File Number 0-25346

ACI WORLDWIDE, INC.
(Exact name of registrant as specified in its charter)

Delaware	**47-0772104**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
3520 Kraft Rd, Suite 300 Naples, Florida	**34105**
(Address of principal executive offices)	**(Zip code)**

(239) 403-4660
(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 every Interactive Data File required to be submitted pursuant to Rule 405 of the Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

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

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

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

As of November 4, 2019, there were 115,598,645 shares of the registrant's common stock outstanding.

Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.005 par value	**ACIW**	**Nasdaq Global Select Market**

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PART I - FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

ACI WORLDWIDE, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS
(unaudited and in thousands, except share and per share amounts)

	September 30, 2019	December 31, 2018
ASSETS		
Current assets		
Cash and cash equivalents	$ 121,581	$ 148,502
Receivables, net of allowances of $3,790 and $3,912, respectively	325,333	348,182
Settlement assets	498,101	32,256
Prepaid expenses	28,160	23,277
Other current assets	31,715	14,260
Total current assets	1,004,890	566,477
Noncurrent assets		
Accrued receivables, net	190,326	189,010
Property and equipment, net	72,747	72,729
Operating lease right-of-use assets	60,280	—
Software, net	235,936	137,228
Goodwill	1,278,265	909,691
Intangible assets, net	363,346	168,127
Deferred income taxes, net	62,970	27,048
Other noncurrent assets	71,996	52,145
TOTAL ASSETS	$ 3,340,756	$ 2,122,455
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 36,002	$ 39,602
Settlement liabilities	477,064	31,605
Employee compensation	41,285	38,115
Current portion of long-term debt	34,119	20,767
Deferred revenue	76,731	104,843
Other current liabilities	69,679	61,688
Total current liabilities	734,880	296,620
Noncurrent liabilities		
Deferred revenue	60,490	51,292
Long-term debt	1,373,555	650,989
Deferred income taxes, net	24,407	31,715
Operating lease liabilities	48,281	—
Other noncurrent liabilities	40,206	43,608
Total liabilities	2,281,819	1,074,224
Commitments and contingencies		
Stockholders' equity		
Preferred stock; $0.01 par value; 5,000,000 shares authorized; no shares issued at September 30, 2019, and December 31, 2018	—	—
Common stock; $0.005 par value; 280,000,000 shares authorized; 140,525,055 shares issued at September 30, 2019, and December 31, 2018	702	702
Additional paid-in capital	660,653	632,235
Retained earnings	875,344	863,768
Treasury stock, at cost, 24,958,573 and 24,401,694 shares at September 30, 2019, and December 31, 2018, respectively	(383,126)	(355,857)
Accumulated other comprehensive loss	(94,636)	(92,617)
Total stockholders' equity	1,058,937	1,048,231
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 3,340,756	$ 2,122,455

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

ACI WORLDWIDE, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(unaudited and in thousands, except per share amounts)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Revenues				
Software as a service and platform as a service	$ 192,952	$ 104,519	$ 474,008	$ 322,399
License	92,058	68,964	165,677	142,565
Maintenance	52,638	54,373	159,671	166,080
Services	17,253	17,669	59,018	58,786
Total revenues	354,901	245,525	858,374	689,830
Operating expenses				
Cost of revenue (1)	174,168	102,473	444,349	326,070
Research and development	36,543	36,008	111,972	110,661
Selling and marketing	30,417	28,252	92,809	93,305
General and administrative	27,286	29,537	108,122	87,023
Depreciation and amortization	31,169	20,896	79,779	63,274
Total operating expenses	299,583	217,166	837,031	680,333
Operating income	55,318	28,359	21,343	9,497
Other income (expense)				
Interest expense	(18,987)	(12,573)	(45,924)	(31,655)
Interest income	2,988	2,763	9,018	8,249
Other, net	(2,369)	(1,304)	(2,879)	(3,036)
Total other income (expense)	(18,368)	(11,114)	(39,785)	(26,442)
Income (loss) before income taxes	36,950	17,245	(18,442)	(16,945)
Income tax expense (benefit)	5,136	2,012	(30,018)	1,824
Net income (loss)	$ 31,814	$ 15,233	$ 11,576	$ (18,769)
Income (loss) per common share				
Basic	$ 0.27	$ 0.13	$ 0.10	$ (0.16)
Diluted	$ 0.27	$ 0.13	$ 0.10	$ (0.16)
Weighted average common shares outstanding				
Basic	116,169	115,889	116,337	115,615
Diluted	118,307	117,492	118,460	115,615

(1) The cost of revenue excludes charges for depreciation but includes amortization of purchased and developed software for resale.

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

ACI WORLDWIDE, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(unaudited and in thousands)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	**2018**	**2019**	**2018**
Net income (loss)	$ 31,814	$ 15,233	$ 11,576	$ (18,769)
Other comprehensive loss:				
Foreign currency translation adjustments	(1,610)	(3,862)	(2,019)	(11,110)
Total other comprehensive loss	(1,610)	(3,862)	(2,019)	(11,110)
Comprehensive income (loss)	$ 30,204	$ 11,371	$ 9,557	$ (29,879)

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

ACI WORLDWIDE, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(unaudited and in thousands, except share amounts)

	Three Months Ended September 30, 2019					
	Common Stock	**Additional Paid-in Capital**	**Retained Earnings**	**Treasury Stock**	**Accumulated Other Comprehensive Loss**	**Total**
Balance as of June 30, 2019	$ 702	$ 650,797	$ 843,530	$ (349,426)	$ (93,026)	$ 1,052,577
Net income	—	—	31,814	—	—	31,814
Other comprehensive loss	—	—	—	—	(1,610)	(1,610)
Stock-based compensation	—	9,371	—	—	—	9,371
Shares issued and forfeited, net, under stock plans including income tax benefits	—	485	—	1,299	—	1,784
Repurchase of 1,204,300 shares of common stock	—	—	—	(34,986)	—	(34,986)
Repurchase of restricted share awards and restricted share units for tax withholdings	—	—	—	(13)	—	(13)
Balance as of September 30, 2019	$ 702	$ 660,653	$ 875,344	$ (383,126)	$ (94,636)	$ 1,058,937

	Three Months Ended September 30, 2018					
	Common Stock	**Additional Paid-in Capital**	**Retained Earnings**	**Treasury Stock**	**Accumulated Other Comprehensive Loss**	**Total**
Balance as of June 30, 2018	$ 702	$ 624,851	$ 760,845	$ (361,079)	$ (84,604)	$ 940,715
Net income	—	—	15,233	—	—	15,233
Other comprehensive loss	—	—	—	—	(3,862)	(3,862)
Stock-based compensation	—	6,575	—	—	—	6,575
Shares issued and forfeited, net, under stock plans including income tax benefits	—	1,121	—	3,156	—	4,277
Balance as of September 30, 2018	$ 702	$ 632,547	$ 776,078	$ (357,923)	$ (88,466)	$ 962,938

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

ACI WORLDWIDE, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(unaudited and in thousands, except share amounts)

	Nine Months Ended September 30, 2019					
	Common Stock	Additional Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Loss	Total
Balance as of December 31, 2018	$ 702	$ 632,235	$ 863,768	$ (355,857)	$ (92,617)	$ 1,048,231
Net income	—	—	11,576	—	—	11,576
Other comprehensive loss	—	—	—	—	(2,019)	(2,019)
Stock-based compensation	—	30,328	—	—	—	30,328
Shares issued and forfeited, net, under stock plans including income tax benefits	—	(1,910)	—	11,170	—	9,260
Repurchase of 1,228,102 shares of common stock	—	—	—	(35,617)	—	(35,617)
Repurchase of restricted share awards and restricted share units for tax withholdings	—	—	—	(2,822)	—	(2,822)
Balance as of September 30, 2019	$ 702	$ 660,653	$ 875,344	$ (383,126)	$ (94,636)	$ 1,058,937

	Nine Months Ended September 30, 2018					
	Common Stock	Additional Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Loss	Total
Balance as of December 31, 2017	$ 702	$ 610,345	$ 550,866	$ (319,960)	$ (77,356)	$ 764,597
Net loss	—	—	(18,769)	—	—	(18,769)
Other comprehensive loss	—	—	—	—	(11,110)	(11,110)
Stock-based compensation	—	20,642	—	—	—	20,642
Shares issued and forfeited, net, under stock plans including income tax benefits	—	1,560	—	19,152	—	20,712
Repurchase of 2,346,427 shares of common stock	—	—	—	(54,527)	—	(54,527)
Repurchase of restricted share awards for tax withholdings	—	—	—	(2,588)	—	(2,588)
Cumulative effect of accounting change, ASC 606	—	—	243,981	—	—	243,981
Balance as of September 30, 2018	$ 702	$ 632,547	$ 776,078	$ (357,923)	$ (88,466)	$ 962,938

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

ACI WORLDWIDE, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(unaudited and in thousands)

	Nine Months Ended September 30,	
	2019	**2018**
Cash flows from operating activities:		
Net income (loss)	$ 11,576	$ (18,769)
Adjustments to reconcile net income (loss) to net cash flows from operating activities:		
Depreciation	17,916	17,896
Amortization	70,627	54,993
Amortization of operating lease right-of-use assets	10,877	—
Amortization of deferred debt issuance costs	2,909	3,881
Deferred income taxes	(39,323)	(7,139)
Stock-based compensation expense	30,328	20,642
Other	2,431	1,432
Changes in operating assets and liabilities, net of impact of acquisitions:		
Receivables	34,690	58,443
Accounts payable	(8,414)	(4,217)
Accrued employee compensation	1,740	92
Current income taxes	(8,536)	(10,429)
Deferred revenue	(17,735)	(47)
Other current and noncurrent assets and liabilities	(20,148)	(16,316)
Net cash flows from operating activities	88,938	100,462
Cash flows from investing activities:		
Purchases of property and equipment	(18,739)	(16,434)
Purchases of software and distribution rights	(18,565)	(21,876)
Acquisition of businesses, net of cash acquired	(757,268)	—
Other	(18,474)	(1,467)
Net cash flows from investing activities	(813,046)	(39,777)
Cash flows from financing activities:		
Proceeds from issuance of common stock	2,662	2,326
Proceeds from exercises of stock options	6,677	18,405
Repurchase of restricted share awards and restricted share units for tax withholdings	(2,822)	(2,588)
Repurchases of common stock	(35,617)	(54,527)
Proceeds from senior notes	—	400,000
Redemption of senior notes	—	(300,000)
Proceeds from revolving credit facility	280,000	109,000
Repayment of revolving credit facility	(15,000)	(111,000)
Proceeds from term portion of credit agreement	500,000	—
Repayment of term portion of credit agreement	(19,162)	(105,332)
Payments for debt issuance costs	(12,830)	(7,253)
Payments on other debt	(8,209)	(2,332)
Net cash flows from financing activities	695,699	(53,301)
Effect of exchange rate fluctuations on cash	1,488	(752)
Net increase (decrease) in cash and cash equivalents	(26,921)	6,632
Cash and cash equivalents, beginning of period	148,502	69,710
Cash and cash equivalents, end of period	$ 121,581	$ 76,342
Supplemental cash flow information		
Income taxes paid	$ 21,205	$ 22,439
Interest paid	$ 47,741	$ 31,914

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

ACI WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(unaudited)

1. Condensed Consolidated Financial Statements

The unaudited condensed consolidated financial statements include the accounts of ACI Worldwide, Inc. and its wholly-owned subsidiaries (collectively, the “Company”). All intercompany balances and transactions have been eliminated. The condensed consolidated financial statements as of September 30, 2019, and for the three and nine months ended September 30, 2019 and 2018, are unaudited and reflect all adjustments of a normal recurring nature, which are, in the opinion of management, necessary for a fair presentation, in all material respects, of the financial position and operating results for the interim periods. The condensed consolidated balance sheet as of December 31, 2018, is derived from the audited financial statements. Certain prior period amounts have been reclassified to conform to current year presentation. The Company reclassified $32.3 million from other current assets to settlement assets and $31.6 million from other current liabilities to settlement liabilities in the condensed consolidated balance sheet as of December 31, 2018.

The condensed consolidated financial statements contained herein should be read in conjunction with the consolidated financial statements and notes thereto contained in the Company’s annual report on Form 10-K for the fiscal year ended December 31, 2018, filed on March 1, 2019. Results for the three and nine months ended September 30, 2019, are not necessarily indicative of results that may be attained in the future.

The preparation of condensed consolidated financial statements in conformity with accounting principles generally accepted in the United States (“U.S. GAAP”) requires management to make judgments, estimates, and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Other Current Liabilities

The components of other current liabilities are included in the following table (in thousands):

	September 30, 2019	December 31, 2018
Operating lease liabilities	$ 15,112	$ —
Vendor financed licenses	8,217	3,551
Royalties payable	6,643	11,318
Accrued interest	3,606	8,407
Other	36,101	38,412
Total other current liabilities	$ 69,679	$ 61,688

Settlement Assets and Liabilities

Individuals and businesses settle their obligations to the Company’s various Biller clients using credit or debit cards or via automated clearing house (“ACH”) payments. The Company creates a receivable for the amount due from the credit or debit card processor and an offsetting payable to the client. Upon confirmation that the funds have been received, the Company settles the obligation to the client. Due to timing, in some instances, the Company may (1) receive the funds into bank accounts controlled by and in the Company’s name that are not disbursed to its clients by the end of the day, resulting in a settlement deposit on the Company’s books and (2) disburse funds to its clients in advance of receiving funds from the credit or debit card processor, resulting in a net settlement receivable position.

Off Balance Sheet Settlement Accounts

The Company also enters into agreements with certain Biller clients to process payment funds on their behalf. When an ACH or automated teller machine network payment transaction is processed, a transaction is initiated to withdraw funds from the designated source account and deposit them into a settlement account, which is a trust account maintained for the benefit of the Company’s clients. A simultaneous transaction is initiated to transfer funds from the settlement account to the intended destination account. These “back to back” transactions are designed to settle at the same time, usually overnight, such that the Company receives the funds from the source at the same time as it sends the funds to their destination. However, due to the transactions being with various financial institutions there may be timing differences that result in float balances. These funds are maintained in accounts for the benefit of the client, which is separate from the Company's corporate assets. As the Company does not take ownership of the funds, these settlement accounts are not included in the Company's balance sheet. The Company is entitled to interest earned on the fund balances. The collection of interest on these settlement accounts is considered in the Company's determination of its fee structure for clients and represents a portion of the payment for services performed by the Company. The amount of settlement funds as of September 30, 2019, and December 31, 2018, was $326.1 million and $256.5 million, respectively.

Fair Value

The fair value of the Company's Credit Agreement approximates the carrying value due to the floating interest rate (Level 2 of the fair value hierarchy). The Company measures the fair value of its Senior Notes based on Level 2 inputs, which include quoted market prices and interest rate spreads of similar securities. The fair value of the Company's 5.750% Senior Notes due 2026 ("2026 Notes") as of September 30, 2019, and December 31, 2018, was $426.0 million and $395.0 million, respectively.

The fair values of cash and cash equivalents approximate the carrying values due to the short period of time to maturity (Level 2 of the fair value hierarchy).

Goodwill

In accordance with the Accounting Standards Codification ("ASC") 350, *Intangibles – Goodwill and Other*, the Company assesses goodwill for impairment annually during the fourth quarter of its fiscal year using October 1 balances or when there is evidence that events or changes in circumstances indicate that the carrying amount of the asset may not be recovered. The Company evaluates goodwill at the reporting unit level and has identified its operating segments, ACI On Demand and ACI On Premise, as its reporting units.

Changes in the carrying amount of goodwill attributable to each reporting unit during the nine months ended September 30, 2019, were as follows (in thousands):

	ACI On Demand	ACI On Premise	Total
Gross Balance, prior to December 31, 2018	$ 183,783	$ 773,340	$ 957,123
Total impairment prior to December 31, 2018	—	(47,432)	(47,432)
Balance, December 31, 2018	183,783	725,908	909,691
Goodwill from acquisitions (1)	368,574	—	368,574
Balance, September 30, 2019	$ 552,357	$ 725,908	$ 1,278,265

(1) Goodwill from acquisitions relates to the goodwill recorded for the acquisition of E Commerce Group Products, Inc. ("ECG"), along with ECG's subsidiary, Speedpay, Inc. (collectively referred to as "Speedpay") and Walletron, Inc. ("Walletron"), as discussed in Note 3, *Acquisition*. The purchase price allocations for Speedpay and Walletron are preliminary as of September 30, 2019, and are subject to future changes during the maximum one-year measurement period.

Recoverability of goodwill is measured using a discounted cash flow model incorporating discount rates commensurate with the risks involved. Use of a discounted cash flow model is common practice in impairment testing in the absence of available transactional market evidence to determine the fair value. The calculated fair value was substantially in excess of the current carrying value for all reporting units based upon the October 1, 2018, annual impairment test and there have been no indications of impairment in the subsequent periods.

Equity Method Investment

On July 23, 2019, the Company invested $18.3 million for a 30% non-controlling financial interest in a payment technology and services company in India. The Company accounted for this investment using the equity method in accordance with ASC 323, *Investments - Equity Method and Joint Ventures*. Accordingly, we recorded an initial investment of $18.5 million, which includes direct costs of acquiring the investment. We will record our share of earnings and losses in the investment on a one-quarter lag basis, which will result in an adjustment to our initial investment during the three months ended December 31, 2019.

New Accounting Standards Recently Adopted

In July 2019, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) 2019-07, *Codification Updates to SEC Sections - Amendments to SEC Paragraphs Pursuant to SEC Final Rule Releases No. 33-10532, Disclosure Update and Simplification, and Nos. 33-10231 and 33-10442, Investment Company Reporting Modernization, and Miscellaneous Updates*, which clarifies or improves the disclosure and presentation requirements of a variety of codification topics by aligning them with the SEC 's regulations. ASU 2019-07 was effective upon issuance and did not have a material impact on the condensed consolidated financial statements.

In February 2016, the FASB issued ASU 2016-2, *Leases* (codified as “ASC 842”). ASC 842 requires lessees to recognize right-of-use (“ROU”) assets and lease liabilities on the balance sheet for all leases unless, as a policy election, a lessee elects not to apply ASC 842 to short-term leases. In addition, this standard requires both lessees and lessors to disclose certain key information about lease transactions. The Company adopted ASC 842 on January 1, 2019 (the effective date), using the optional transition method to not apply the new lease standard in the comparative periods presented and elected the “practical expedient package”, which permits the Company to not reassess prior conclusions about lease identification, lease classification, and initial direct costs. ASC 842 also provides practical expedients for the Company’s ongoing accounting including the combination of lease and non-lease components into a single lease component which the Company has elected to apply to its leases. As of January 1, 2019, the Company recognized ROU assets and operating lease liabilities of $63.3 million and $68.6 million, respectively. Refer to Note 13, *Leases*, for further details.

In February 2018, the FASB issued ASU 2018-2, *Income Statement-Reporting Comprehensive Income: Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*. This ASU provides an option to reclassify stranded tax effects within accumulated other comprehensive income (“AOCI”) to retained earnings in each period in which the effect of the change in the U.S. federal corporate income tax rate in the 2017 U.S. Tax Cuts and Jobs Act (or portion thereof) is recorded. This ASU requires disclosure of a description of the accounting policy for releasing income tax effects from AOCI; whether election is made to reclassify the stranded income tax effects from the 2017 U.S. Tax Cuts and Jobs Act; and information about the income tax effects that are reclassified. The Company adopted ASU 2018-2 as of January 1, 2019. The adoption of ASU 2018-2 did not have an impact on the condensed consolidated balance sheet, results of operations, and statement of cash flows.

Recently Issued Accounting Standards Not Yet Effective

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments – Credit Losses: Measurement of Credit Losses on Financial Instruments*, and subsequent amendments to the guidance, ASU 2018-19 in November 2018, ASU 2019-04 in April 2019, and ASU 2019-05 in May 2019. This ASU provides financial statement users with more decision-useful information about the expected credit losses on financial instruments and other commitments to extend credit held by a reporting entity at each reporting date. The amendments in ASU 2016-13 replace the incurred loss impairment methodology in current U.S. GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. The Company will be required to use a forward-looking expected credit loss model for accounts receivables. ASU 2016-13 is effective for annual and interim periods beginning after December 15, 2019.

The Company has established a project team to assess implementing changes to its processes and controls in conjunction with a comprehensive review of its financial instruments. The Company is currently assessing the impact the adoption of ASU 2016-13 will have on its condensed consolidated balance sheet, results of operations, and statement of cash flows.

2. Revenue

In accordance with ASC 606, *Revenue From Contracts With Customers*, revenue is recognized upon transfer of control of promised products and/or services to customers in an amount that reflects the consideration the Company expects to receive in exchange for those products and services. Revenue is recognized net of any taxes collected from customers and subsequently remitted to governmental authorities. Refer to Note 11, *Segment Information*, for further details, including disaggregation of revenue based on primary solution category and geographic location.

Total receivables represent amounts billed and amounts earned that are to be billed in the future (i.e., accrued receivables). Included in accrued receivables are services, software as a service ("SaaS"), and platform as a service ("PaaS") revenues earned in the current period but billed in the following period, and amounts due under multi-year software license arrangements with extended payment terms for which the Company has an unconditional right to invoice and receive payment subsequent to invoicing.

Total receivables, net is comprised of the following (in thousands):

	September 30, 2019	December 31, 2018
Billed receivables	$ 187,080	$ 239,275
Allowance for doubtful accounts	(3,790)	(3,912)
Billed receivables, net	183,290	235,363
Accrued receivables	365,478	336,858
Significant financing component	(33,109)	(35,029)
Total accrued receivables, net	332,369	301,829
Less: current accrued receivables	152,668	123,053
Less: current significant financing component	(10,625)	(10,234)
Total long-term accrued receivables, net	190,326	189,010
Total receivables, net	$ 515,659	$ 537,192

No customer accounted for more than 10% of the Company's consolidated receivables balance as of September 30, 2019, or December 31, 2018.

Deferred revenue includes amounts due or received from customers for software licenses, maintenance, services, and/or SaaS and PaaS services in advance of recording the related revenue. Changes in deferred revenue were as follows (in thousands):

Balance, December 31, 2018	$ 156,135
Deferral of revenue	121,310
Recognition of deferred revenue	(139,070)
Foreign currency translation	(1,154)
Balance, September 30, 2019	$ 137,221

Revenue allocated to remaining performance obligations represents contracted revenue that will be recognized in future periods, which is comprised of deferred revenue and amounts that will be invoiced and recognized as revenue in future periods. This does not include:

- Revenue that will be recognized in future periods from capacity overages that are accounted for as a usage-based royalty.
- SaaS and PaaS revenue from variable consideration that will be recognized in accordance with the 'right to invoice' practical expedient.
- SaaS and PaaS revenue from variable consideration that will be recognized in accordance with the direct allocation method.

Revenue allocated to remaining performance obligations was $618.5 million as of September 30, 2019, of which the Company expects to recognize approximately 46% over the next 12 months and the remainder thereafter.

During the three and nine months ended September 30, 2019 and 2018, revenue recognized by the Company from performance obligations satisfied in previous periods was not significant.

3. Acquisition

Speedpay

On May 9, 2019, the Company acquired Speedpay, a subsidiary of The Western Union Company ("Western Union"), for $754.1 million in cash, including working capital adjustments, pursuant to a Stock Purchase Agreement, among the Company, Western Union, and ACI Worldwide Corp., a wholly owned subsidiary of the Company. The Company has included the financial results of Speedpay in the condensed consolidated financial statements from the date of acquisition. The combination of the Company and Speedpay bill pay solutions serves more than 4,000 customers across the U.S., bringing expanded reach in existing and complementary market segments such as consumer finance, insurance, healthcare, higher education, utilities, government, and mortgage. The acquisition of Speedpay increases the scale of the Company's On Demand platform business and allows the acceleration of platform innovation through increased research and development and investment in ACI's On Demand platform infrastructure.

To fund the acquisition, the Company amended its existing Credit Agreement, dated February 24, 2017, for an additional $500.0 million senior secured term loan ("Delayed Draw Term Loan"), in addition to drawing $250.0 million on the available Revolving Credit Facility. See Note 4, *Debt*, for terms of the Credit Agreement. The remaining acquisition consideration was funded with cash on hand.

The Company expensed approximately $0.9 million and $22.2 million of costs related to the acquisition of Speedpay for the three and nine months ended September 30, 2019, respectively. These costs, which consist primarily of investment bank, consulting, and legal fees, are included in general and administrative expenses in the accompanying condensed consolidated statements of operations.

Speedpay contributed approximately $87.7 million in revenue and $7.5 million in operating income for the three months ended September 30, 2019. Speedpay contributed approximately $137.1 million in revenue and $15.2 million in operating income for the nine months ended September 30, 2019.

The consideration paid by the Company to complete the acquisition has been allocated preliminarily to the assets acquired and liabilities assumed based upon estimated fair values as of the date of the acquisition. The allocation of purchase price is based upon external valuation and other analyses that have not been completed as of the date of this filing, including, but not limited to, certain tax matters, software, intangible assets, and accrued liabilities. Accordingly, the purchase price allocations are preliminary and are subject to future adjustments during the maximum one-year allocation period.

In connection with the acquisition, the Company recorded the following amounts based upon its preliminary purchase price allocation as of September 30, 2019, which are subject to completion of the valuation and other analyses (in thousands, except weighted average useful lives):

	Amount	Weighted Average Useful Lives
Current assets:		
Cash and cash equivalents	$ 135	
Receivables, net of allowances	18,358	
Settlement assets	239,604	
Prepaid expenses	317	
Other current assets	19,585	
Total current assets acquired	277,999	
Noncurrent assets:		
Goodwill	365,928	
Software	113,600	7 years
Customer relationships	208,500	15 years
Trademarks	10,900	5 years
Other noncurrent assets	3,745	
Total assets acquired	980,672	
Current liabilities:		
Accounts payable	6,743	
Settlement liabilities	212,892	
Employee compensation	1,959	
Other current liabilities	3,802	
Total current liabilities acquired	225,396	
Noncurrent liabilities:		
Other noncurrent liabilities	1,219	
Total liabilities acquired	226,615	
Net assets acquired	$ 754,057	

During the three months ended September 30, 2019, the Company made adjustments to the preliminary purchase price allocation as additional information became available for receivables. These adjustments and any resulting adjustments to the statements of operations were not material to the Company's previously reported operating results or financial position.

Factors contributing to the purchase price that resulted in the goodwill (which is tax deductible) include the acquisition of management, sales, and technology personnel with the skills to market new and existing products of the Company, enhanced product capabilities, complementary products and customers.

Unaudited Pro Forma Financial Information

The pro forma financial information in the table below presents the combined results of operations for ACI and Speedpay as if the acquisition had occurred January 1, 2018. The pro forma information is shown for illustrative purposes only and is not necessarily indicative of future results of operations of the Company or results of operations of the Company that would have actually occurred had the transaction been in effect for the periods presented. This pro forma information is not intended to represent or be indicative of actual results had the acquisition occurred as of the beginning of each period, and does not reflect potential synergies, integration costs, or other such costs or savings.

Certain pro forma adjustments have been made to net income (loss) for the three and nine months ended September 30, 2019 and 2018, to give effect to estimated adjustments that remove the amortization expense on eliminated Speedpay historical identifiable intangible assets, add amortization expense for the value of acquired identified intangible assets (primarily acquired software, customer relationships, and trademarks), and add estimated interest expense on the Company's additional Delayed Draw Term

Loan and Revolving Credit Facility borrowings. Additionally, certain transaction expenses that are a direct result of the acquisition have been excluded from the three and nine months ended September 30, 2019 and 2018.

The following is the unaudited summarized pro forma financial information for the periods presented (in thousands, except per share data):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Pro forma revenue	$ 354,901	$ 330,983	$ 983,037	$ 957,673
Pro forma net income	32,513	20,379	26,517	3,418
Pro forma income per share:				
Basic	$ 0.28	$ 0.18	$ 0.23	$ 0.03
Diluted	0.27	0.17	0.22	0.03

Walletron

On May 9, 2019, the Company also completed the acquisition of Walletron, Inc. ("Walletron"), which delivers patented mobile wallet technology. The Company has included the financial results of Walletron in the condensed consolidated financial statements from the date of acquisition, which were not material.

4. Debt

As of September 30, 2019, the Company had $265.0 million, $765.8 million, and $400.0 million outstanding under its Revolving Credit Facility, Term Loan, and Senior Notes, respectively, with up to $235.0 million of unused borrowings under the Revolving Credit Facility portion of the Credit Agreement, as amended.

Credit Agreement

On April 5, 2019, the Company (and its wholly-owned subsidiaries, ACI Worldwide Corp. and Official Payments Corporation ("OPAY")) entered into the Second Amended and Restated Credit Agreement (the “Credit Agreement”) with the lenders, and Bank of America, N.A., as administrative agent for the lenders, to amend and restate the Company's existing agreement, as amended, dated February 24, 2017. The amended Credit Agreement: permitted the Company to borrow up to $500.0 million in the form of an additional senior secured term loan; extended the revolver and the existing term loan maturity date from February 24, 2022, to April 5, 2024; increased the maximum consolidated senior secured net leverage ratio covenant from 3.50:1.00 to 3.75 :1.00; and increased the maximum consolidated total net leverage ratio covenant from 4.25:1.00 to 5.00:1.00, with subsequent decreases occurring every three quarters thereafter for a specified period of time; among other things. In connection with amending the Credit Agreement, the Company incurred and paid debt issuance costs of $12.8 million during the nine months ended September 30, 2019.

The Credit Agreement consists of (a) a five-year $500.0 million senior secured revolving credit facility (the “Revolving Credit Facility”), which includes sublimits for (1) the issuance of standby letters of credit and (2) swingline loans, (b) a five-year $279.0 million senior secured term loan facility (the "Initial Term Loan") and (c) a five-year $500.0 million Delayed Draw Term Loan (together with the Initial Term Loan, the "Term Loans", and together with the Initial Term Loan and the Revolving Credit Facility, the “Credit Facility”). The Credit Agreement also allows the Company to request optional incremental term loans and increases in the revolving commitment.

At the Company’s option, borrowings under the Credit Facility bear interest at an annual rate equal to, either (a) a base rate determined by reference to the highest of (1) the annual interest rate publicly announced by the administrative agent as its Prime Rate, (2) the federal funds effective rate plus 1/2 of 1%, or (3) a London Interbank Offered Rate (“LIBOR”) rate determined by reference to the costs of funds for U.S. dollar deposits for a one-month interest period, adjusted for certain additional costs, plus 1% or (b) a LIBOR rate determined by reference to the costs of funds for U.S. dollar deposits for the interest period relevant to such borrowings, adjusted for certain additional costs, plus an applicable margin. Based on the calculation of the applicable consolidated total leverage ratio, the applicable margin for borrowings under the Credit Facility is between 0.25% to 1.25% with respect to base rate borrowings and between 1.25% and 2.25% with respect to LIBOR rate borrowings. Interest is due and payable monthly. The interest rate in effect as of September 30, 2019, for the Credit Facility was 4.29%.

The Company is also required to pay (a) a commitment fee related to the unutilized commitments under the Revolving Credit Facility, payable quarterly in arrears, (b) letter of credit fees on the maximum amount available to be drawn under all outstanding letters of credit in an amount equal to the applicable margin on LIBOR rate borrowings under the Revolving Credit Facility on an annual basis, payable quarterly in arrears, and (c) customary fronting fees for the issuance of letters of credit fees and agency fees.

The Company's obligations under the Credit Facility and cash management arrangements entered into with lenders under the Credit Facility (or affiliates thereof) and the obligations of the subsidiary guarantors are secured by first-priority security interests in substantially all assets of the Company and any guarantor, including 100% of the capital stock of ACI Worldwide Corp. and each domestic subsidiary of the Company, each domestic subsidiary of any guarantor, and 65% of the voting capital stock of each foreign subsidiary of the Company that is directly owned by the Company or a guarantor, in each case subject to certain exclusions set forth in the credit documentation governing the Credit Facility. The collateral agreement of the Credit Agreement, as amended, released the lien on certain assets of OPAY, our electronic bill presentment and payment affiliate, to allow OPAY to comply with certain eligible securities and unencumbered asset requirements related to money transmitter or transfer license rules and regulations.

The Credit Agreement contains a number of covenants that, among other things and subject to certain exceptions, restrict the Company's and its subsidiaries' ability to: create, incur, assume or suffer to exist any additional indebtedness; create, incur, assume or suffer to exist any liens; enter into agreements and other arrangements that include negative pledge clauses; pay dividends on capital stock or redeem, repurchase or retire capital stock or subordinated indebtedness; create restrictions on the payment of dividends or other distributions by subsidiaries; make investments, loans, advances and acquisitions; merge, consolidate or enter into any similar combination or sell assets, including equity interests of the subsidiaries; enter into sale and leaseback transactions; directly or indirectly engage in transactions with affiliates; alter in any material respect the character or conduct of the business; enter into amendments of or waivers under subordinated indebtedness, organizational documents and certain other material agreements; and hold certain assets and incur certain liabilities.

Expected Discontinuation of LIBOR

In July 2017, the United Kingdom's Financial Conduct Authority, which regulates LIBOR, announced it will no longer compel banks to submit rates for the calculation of LIBOR after 2021. The Alternative Reference Rates Committee has proposed the Secured Overnight Financing Rate ("SOFR") as its recommended alternative to LIBOR, and the first publication of SOFR rates was released in April 2018.

The Company is evaluating the potential impact of the transition from LIBOR as an interest rate benchmark to other potential alternative reference rates, including SOFR. The Company's Credit Agreement is currently indexed to LIBOR and the maturity date of the Credit Agreement extends beyond 2021. The Credit Agreement contemplates the discontinuation of LIBOR and provides options for the Company in such an event. The Company will continue to actively assess the related opportunities and risks involved in this transition.

Senior Notes

On August 21, 2018, the Company completed a $400.0 million offering of the 2026 Notes at an issue price of 100% of the principal amount in a private placement for resale to qualified institutional buyers. The 2026 Notes bear interest at an annual rate of 5.750%, payable semi-annually in arrears on February 15 and August 15 of each year, commencing on February 15, 2019. Interest accrued from August 21, 2018. The 2026 Notes will mature on August 15, 2026.

Maturities on debt outstanding as of September 30, 2019, are as follows (in thousands):

Fiscal Year Ending December 31,		
Remainder of 2019	$	9,738
2020		38,950
2021		38,950
2022		50,431
2023		69,906
Thereafter		1,222,823
Total	$	1,430,798

The Credit Facility will mature on April 5, 2024, and the 2026 Notes will mature on August 15, 2026. The Revolving Credit Facility and 2026 Notes do not amortize. The Term Loans do amortize, with principal payable in consecutive quarterly installments.

The Credit Agreement and 2026 Notes contain certain customary affirmative covenants and negative covenants that limit or restrict, subject to certain exceptions, the incurrence of liens, indebtedness of subsidiaries, mergers, advances, investments, acquisitions, transactions with affiliates, change in nature of business, and the sale of the assets. In addition, the Credit Agreement and 2026 Notes contain certain customary mandatory prepayment provisions. The Company is also required to maintain a consolidated leverage ratio at or below a specified amount and an interest coverage ratio at or above a specified amount. As specified in the Credit Agreement and 2026 Notes agreement, if certain events occur and continue, the Company may be required to repay all amounts outstanding under the Credit Facility and 2026 Notes. As of September 30, 2019, and at all times during the period, the Company was in compliance with its financial debt covenants.

Total debt is comprised of the following (in thousands):

	September 30, 2019	December 31, 2018
Term loans	$ 765,798	$ 284,959
Revolving credit facility	265,000	—
5.750% Senior notes, due August 2026	400,000	400,000
Debt issuance costs	(23,124)	(13,203)
Total debt	1,407,674	671,756
Less: current portion of term loans	38,950	23,747
Less: current portion of debt issuance costs	(4,831)	(2,980)
Total long-term debt	$ 1,373,555	$ 650,989

Overdraft Facility

In 2019, the Company and OPAY entered in to a $140.0 million uncommitted overdraft facility with Bank of America, N.A. The overdraft facility bears interest at LIBOR plus 0.875% based on the Company’s average outstanding balance and the frequency in which overdrafts occur. The overdraft facility acts as a secured loan under the terms of the Credit Agreement to provide an additional funding mechanism for timing differences that can occur in the bill payment settlement process. Amounts outstanding on the overdraft facility are included in other current liabilities in the condensed consolidated balance sheet. As of September 30, 2019, there was no amount outstanding on the overdraft facility.

Other

During the nine months ended September 30, 2019, the Company financed certain multi-year license agreements for internal-use software for $10.4 million, with annual payments through April 2022. As of September 30, 2019, $13.8 million is outstanding under these and other license agreements previously entered into, of which $6.0 million and $7.8 million is included in other current liabilities and other noncurrent liabilities, respectively, in the condensed consolidated balance sheet. Upon execution, these arrangements have been treated as a non-cash investment and financing activity for purposes of the condensed consolidated statements of cash flows.

5. Stock-Based Compensation Plans

Employee Stock Purchase Plan

Shares issued under the 2017 Employee Stock Purchase Plan during the nine months ended September 30, 2019 and 2018, totaled 92,765 and 112,549, respectively.

Stock Options

A summary of stock option activity is as follows:

	Number of Shares	Weighted Average Exercise Price ($)	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value of In-the-Money Options ($)
Outstanding as of December 31, 2018	4,864,836	$ 17.76		
Exercised	(419,928)	15.90		
Forfeited	(3,496)	17.89		
Outstanding as of September 30, 2019	4,441,412	$ 17.93	5.52	$ 59,471,161
Exercisable as of September 30, 2019	3,897,260	$ 17.61	5.29	$ 53,440,113

The weighted average grant date fair value of stock options granted during the nine months ended September 30, 2018, was $7.03. The total intrinsic value of stock options exercised during the nine months ended September 30, 2019 and 2018, was $6.9 million and $13.6 million, respectively. There were no stock options granted during the nine months ended September 30, 2019.

The fair value of options granted during the nine months ended September 30, 2018, were estimated on the date of grant using the Black-Scholes option-pricing model, acceptable under ASC 718, *Compensation – Stock Compensation* (“ASC 718”), with the following weighted average assumptions:

	Nine Months Ended September 30, 2018
Expected life (years)	5.6
Risk-free interest rate	2.7%
Expected volatility	26.4%
Expected dividend yield	—

Expected volatilities are based on the Company’s historical common stock volatility, derived from historical stock price data for periods commensurate with the options’ expected life. The expected life of the options granted represents the period of time options are expected to be outstanding, based primarily on historical employee option exercise behavior. The risk-free interest rate is based on the implied yield currently available on U.S. Treasury zero coupon bonds issued with a term equal to the expected life at the date of grant of the options. The expected dividend yield is zero, as the Company has historically paid no dividends and does not anticipate dividends to be paid in the future.

Long-term Incentive Program Performance Share Awards

A summary of nonvested long-term incentive program performance share awards (“LTIP performance shares”) is as follows:

	Number of Shares at Expected Attainment	Weighted Average Grant Date Fair Value
Nonvested as of December 31, 2018	540,697	$ 19.83
Forfeited	(23,029)	20.12
Change in attainment	377,557	20.22
Nonvested as of September 30, 2019	895,225	$ 19.99

During the nine months ended September 30, 2019, the Company revised the expected attainment rates for all outstanding LTIP performance shares due to changes in forecasted sales and operating income, resulting in additional stock-based compensation expense of approximately $6.0 million for the nine months ended September 30, 2019.

Restricted Share Awards

A summary of nonvested restricted share awards ("RSAs") is as follows:

	Number of Shares	Weighted Average Grant Date Fair Value
Nonvested as of December 31, 2018	213,337	$ 20.21
Vested	(106,610)	20.17
Forfeited	(10,934)	20.12
Nonvested as of September 30, 2019	95,793	$ 20.21

During the nine months ended September 30, 2019, a total of 106,610 RSAs vested. The Company withheld 32,371 of those shares to pay the employees' portion of the minimum payroll withholding taxes.

Total Shareholder Return Awards

A summary of nonvested total shareholder return awards ("TSRs") is as follows:

	Number of Shares	Weighted Average Grant Date Fair Value
Nonvested as of December 31, 2018	718,931	$ 29.25
Granted	436,674	47.90
Forfeited	(27,567)	37.22
Nonvested as of September 30, 2019	1,128,038	$ 36.27

The fair value of TSRs granted during the nine months ended September 30, 2019 and 2018, were estimated on the date of grant using the Monte Carlo simulation model, acceptable under ASC 718, using the following weighted average assumptions:

	Nine Months Ended September 30,	
	2019	2018
Expected life (years)	2.8	2.9
Risk-free interest rate	2.5%	2.4%
Expected volatility	29.3%	28.0%
Expected dividend yield	—	—

Restricted Share Units

A summary of nonvested restricted share unit awards (“RSUs”) is as follows:

	Number of Shares	Weighted Average Grant Date Fair Value
Nonvested as of December 31, 2018	651,045	$ 23.82
Granted	687,302	33.05
Vested	(259,634)	24.16
Forfeited	(36,588)	27.94
Nonvested as of September 30, 2019	1,042,125	$ 29.68

During the nine months ended September 30, 2019, a total of 259,634 RSUs vested. The Company withheld 57,802 of those shares to pay the employees’ portion of the minimum payroll withholding taxes.

As of September 30, 2019, there were unrecognized compensation costs of $23.9 million related to nonvested RSUs, $23.2 million related to nonvested TSRs, $2.4 million related to nonvested LTIP performance shares, $0.8 million related to nonvested RSAs, and $0.5 million related to nonvested stock options, which the Company expects to recognize over weighted average periods of 1.6 years, 1.9 years, 0.5 years, 0.4 years, and 0.5 years, respectively.

The Company recorded stock-based compensation expense recognized under ASC 718 for the three months ended September 30, 2019 and 2018, of $9.3 million and $6.5 million, respectively, with corresponding tax benefits of $1.5 million during each quarter. The Company recorded stock-based compensation expense recognized under ASC 718 for the nine months ended September 30, 2019 and 2018, of $30.3 million and $20.6 million, respectively, with the corresponding tax benefits of $5.5 million and $3.6 million, respectively.

6. Software and Other Intangible Assets

As of September 30, 2019, software net book value totaled $235.9 million, net of $288.3 million of accumulated amortization. Included in this net book value amount is software for resale of $18.5 million and software acquired or developed for internal use of $217.4 million.

As of December 31, 2018, software net book value totaled $137.2 million, net of $252.2 million of accumulated amortization. Included in this net book value amount is software for resale of $27.5 million and software acquired or developed for internal use of $109.7 million.

Amortization of software for resale is computed using the greater of (a) the ratio of current revenues to total current and future revenues expected to be derived from the software or (b) the straight-line method over an estimated useful life of generally three to ten years. Software for resale amortization expense recorded during the three months ended September 30, 2019 and 2018, totaled $2.8 million and $2.6 million, respectively. Software for resale amortization expense recorded in the nine months ended September 30, 2019 and 2018, totaled $8.8 million and $9.6 million, respectively. These software amortization expense amounts are reflected in cost of revenue in the condensed consolidated statements of operations.

Amortization of software for internal use is computed using the straight-line method over an estimated useful life of generally three to ten years. Software for internal use amortization expense recorded during the three months ended September 30, 2019 and 2018, totaled $15.7 million and $10.2 million, respectively. Software for internal use amortization expense recorded during the nine months ended September 30, 2019 and 2018, totaled $39.4 million and $31.0 million, respectively. These software amortization expense amounts are reflected in depreciation and amortization in the condensed consolidated statements of operations.

The carrying amount and accumulated amortization of the Company’s other intangible assets subject to amortization at each balance sheet date are as follows (in thousands):

	September 30, 2019			December 31, 2018		
	Gross Carrying Amount	Accumulated Amortization	Net Balance	Gross Carrying Amount	Accumulated Amortization	Net Balance
Customer relationships	$ 502,682	$ (149,946)	$ 352,736	$ 297,991	$ (131,187)	$ 166,804
Trademarks and tradenames	27,052	(16,442)	10,610	16,348	(15,025)	1,323
Total other intangible assets	$ 529,734	$ (166,388)	$ 363,346	$ 314,339	$ (146,212)	$ 168,127

Other intangible assets amortization expense during the three months ended September 30, 2019 and 2018, totaled $9.4 million and $4.7 million, respectively. Other intangible assets amortization expense for the nine months ended September 30, 2019 and 2018, totaled $22.5 million and $14.4 million, respectively.

Based on capitalized intangible assets as of September 30, 2019, estimated amortization expense amounts in future fiscal years are as follows (in thousands):

Fiscal Year Ending December 31,	Software	Other Intangible Assets
Remainder of 2019	$ 17,416	$ 9,304
2020	64,756	36,783
2021	51,549	36,308
2022	33,878	36,166
2023	23,374	35,876
Thereafter	44,963	208,909
Total	$ 235,936	$ 363,346

7. Corporate Restructuring and Other Organizational Changes

A summary of the facility closures liability is as follows (in thousands):

Balance, December 31, 2018	$ 4,127
Amounts paid during the period	(1,167)
Foreign currency translation adjustments	(42)
Balance, September 30, 2019	$ 2,918

Of the $2.9 million restructuring liability, $1.4 million and $1.5 million are recorded in other current liabilities and operating lease liabilities, respectively, in the condensed consolidated balance sheet as of September 30, 2019.

8. Common Stock and Treasury Stock

In 2005, the board approved a stock repurchase program authorizing the Company, as market and business conditions warrant, to acquire its common stock and periodically authorize additional funds for the program. In February 2018, the board approved the repurchase of the Company's common stock for up to $200.0 million, in place of the remaining purchase amounts previously authorized.

The Company repurchased 1,228,102 shares for $35.6 million under the program during the nine months ended September 30, 2019. Under the program to date, the Company has repurchased 45,357,495 shares for approximately $583.4 million. As of September 30, 2019, the maximum remaining amount authorized for purchase under the stock repurchase program was $141.0 million.

9. Earnings (Loss) Per Share

Basic earnings (loss) per share is computed in accordance with ASC 260, *Earnings Per Share*, based on weighted average outstanding common shares. Diluted earnings (loss) per share is computed based on basic weighted average outstanding common shares adjusted for the dilutive effect of stock options and RSUs.

The following table reconciles the weighted average share amounts used to compute both basic and diluted earnings (loss) per share (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Weighted average shares outstanding:				
Basic weighted average shares outstanding	116,169	115,889	116,337	115,615
Add: Dilutive effect of stock options and RSUs	2,138	1,603	2,123	—
Diluted weighted average shares outstanding	118,307	117,492	118,460	115,615

The diluted earnings per share computation excludes 2.1 million and 1.2 million options to purchase shares, RSUs, and contingently issuable shares during the three months ended September 30, 2019 and 2018, respectively, as their effect would be anti-dilutive. The diluted earnings (loss) per share computation excludes 2.1 million and 8.0 million options to purchase shares, RSAs, RSUs, and contingently issuable shares during the nine months ended September 30, 2019 and 2018, respectively, as their effect would be anti-dilutive.

Common stock outstanding as of September 30, 2019, and December 31, 2018, was 115,566,482 and 116,123,361, respectively.

10. Other, Net

Other, net is comprised of foreign currency transaction losses of $2.4 million and $1.3 million for the three months ended September 30, 2019 and 2018, respectively. Other, net is comprised of foreign currency transaction losses of $2.9 million and $3.0 million for the nine months ended September 30, 2019 and 2018, respectively.

11. Segment Information

The Company reports financial performance based on its segments, ACI On Premise and ACI On Demand, and analyzes Segment Adjusted EBITDA as a measure of segment profitability.

The Company's Chief Executive Officer is also the chief operating decision maker ("CODM"). The CODM, together with other senior management personnel, focus their review on consolidated financial information and the allocation of resources based on operating results, including revenues and Segment Adjusted EBITDA, for each segment, separate from Corporate operations.

ACI On Premise serves customers who manage their software on site. These on-premise customers use the Company's software to develop sophisticated solutions, which are often part of a larger system located and managed at the customer specified site. These customers require a level of control and flexibility that ACI On Premise solutions can offer, and they have the resources and expertise to take a lead role in managing these solutions.

ACI On Demand serves the needs of banks, merchants and corporates who use payments to facilitate their core business. These on-demand solutions are maintained and delivered through the cloud via our global data centers and are available in either a single-tenant environment for SaaS offerings, or in a multi-tenant environment for PaaS offerings.

Revenue is attributed to the reportable segments based upon the product sold and mechanism for delivery to the customer. Expenses are attributed to the reportable segments in one of three methods: (1) direct costs of the segment, (2) labor costs that can be attributed based upon time tracking for individual products, or (3) costs that are allocated. Allocated costs are generally marketing and sales related activities as well as information technology and facilities related expense for which multiple segments benefit. The Company also allocates certain depreciation costs to the segments.

Segment Adjusted EBITDA is the measure reported to the CODM for purposes of making decisions on allocating resources and assessing the performance of the Company's segments, and, therefore, Segment Adjusted EBITDA is presented in conformity with ASC 280, *Segment Reporting.* Segment Adjusted EBITDA is defined as earnings (loss) from operations before interest, income tax expense (benefit), depreciation and amortization ("EBITDA") adjusted to exclude stock-based compensation, and net other income (expense).

Corporate and unallocated expenses consist of the corporate overhead costs that are not allocated to reportable segments. These overhead costs relate to human resources, finance, legal, accounting, merger and acquisition activity, and other costs that are not considered when management evaluates segment performance.

The following is selected financial data for the Company's reportable segments (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Revenue				
ACI On Premise	$ 161,949	$ 141,006	$ 383,075	$ 367,431
ACI On Demand	192,952	104,519	475,299	322,399
Total revenue	$ 354,901	$ 245,525	$ 858,374	$ 689,830
Segment Adjusted EBITDA				
ACI On Premise	$ 99,553	$ 77,819	$ 184,890	$ 171,477
ACI On Demand	18,561	3,270	35,639	(4,327)
Depreciation and amortization	(33,913)	(23,545)	(88,543)	(72,889)
Stock-based compensation expense	(9,371)	(6,575)	(30,328)	(20,642)
Corporate and unallocated expenses	(19,512)	(22,610)	(80,315)	(64,122)
Interest, net	(15,999)	(9,810)	(36,906)	(23,406)
Other, net	(2,369)	(1,304)	(2,879)	(3,036)
Income (loss) before income taxes	$ 36,950	$ 17,245	$ (18,442)	$ (16,945)
Depreciation and amortization				
ACI On Premise	$ 2,963	$ 2,772	$ 9,012	$ 8,596
ACI On Demand	9,059	7,906	25,110	23,468
Corporate	21,891	12,867	54,421	40,825
Total depreciation and amortization	$ 33,913	$ 23,545	$ 88,543	$ 72,889
Stock-based compensation expense				
ACI On Premise	$ 2,227	$ 1,806	$ 6,234	$ 5,111
ACI On Demand	2,389	1,802	6,554	5,099
Corporate	4,755	2,967	17,540	10,432
Total stock-based compensation expense	$ 9,371	$ 6,575	$ 30,328	$ 20,642

Assets are not allocated to segments, and the Company's CODM does not evaluate operating segments using discrete asset information.

The following is revenue by primary geographic market and primary solution category for the Company's reportable segments (in thousands):

	Three Months Ended September 30, 2019			Three Months Ended September 30, 2018		
	ACI On Premise	ACI On Demand	Total	ACI On Premise	ACI On Demand	Total
Primary Geographic Markets						
Americas - United States	$ 53,986	$ 176,172	$ 230,158	$ 26,022	$ 88,401	$ 114,423
Americas - Other	22,879	2,268	25,147	16,709	2,409	19,118
EMEA	72,662	12,191	84,853	80,738	12,385	93,123
Asia Pacific	12,422	2,321	14,743	17,537	1,324	18,861
Total	$ 161,949	$ 192,952	$ 354,901	$ 141,006	$ 104,519	$ 245,525
Primary Solution Categories						
Bill Payments	$ —	$ 154,285	$ 154,285	$ —	$ 64,134	$ 64,134
Digital Channels	6,791	8,480	15,271	7,499	9,327	16,826
Merchant Payments	4,739	18,534	23,273	6,272	19,481	25,753
Payments Intelligence	13,623	8,759	22,382	7,203	9,639	16,842
Real-Time Payments	19,191	1,032	20,223	23,704	540	24,244
Retail Payments	117,605	1,862	119,467	96,328	1,398	97,726
Total	$ 161,949	$ 192,952	$ 354,901	$ 141,006	$ 104,519	$ 245,525

	Nine Months Ended September 30, 2019			Nine Months Ended September 30, 2018		
	ACI On Premise	ACI On Demand	Total	ACI On Premise	ACI On Demand	Total
Primary Geographic Markets						
Americas - United States	$ 116,104	$ 425,033	$ 541,137	$ 82,280	$ 275,171	$ 357,451
Americas - Other	46,237	7,118	53,355	45,269	7,077	52,346
EMEA	167,268	36,751	204,019	181,913	36,819	218,732
Asia Pacific	53,466	6,397	59,863	57,969	3,332	61,301
Total	$ 383,075	$ 475,299	$ 858,374	$ 367,431	$ 322,399	$ 689,830
Primary Solution Categories						
Bill Payments	$ —	$ 348,592	$ 348,592	$ —	$ 204,673	$ 204,673
Digital Channels	24,960	36,280	61,240	27,779	30,281	58,060
Merchant Payments	17,398	55,815	73,213	16,655	48,439	65,094
Payments Intelligence	27,164	26,614	53,778	25,532	30,508	56,040
Real-Time Payments	55,714	2,557	58,271	53,086	1,474	54,560
Retail Payments	257,839	5,441	263,280	244,379	7,024	251,403
Total	$ 383,075	$ 475,299	$ 858,374	$ 367,431	$ 322,399	$ 689,830

The following is the Company's long-lived assets by geographic location (in thousands):

	September 30, 2019	December 31, 2018
Long-lived Assets		
United States	$ 1,527,747	$ 811,435
Other	745,149	717,495
Total	$ 2,272,896	$ 1,528,930

No single customer accounted for more than 10% of the Company’s consolidated revenues during the three and nine months ended September 30, 2019 and 2018. Aggregate revenues attributable to our customers in Canada accounted for 11.8% of the Company's consolidated revenues during the three months ended September 30, 2018. No other country outside the United States and Canada accounted for more than 10% of the Company’s consolidated revenues during the three months ended September 30, 2019 and 2018. No other country outside the United States accounted for more than 10% of the Company's consolidated revenues during the nine months ended September 30, 2019 and 2018.

12. Income Taxes

The effective tax rate for the three and nine months ended September 30, 2019, was 14% and 163%, respectively. The Company reported a tax charge on pretax income for the three months ended September 30, 2019, and a tax benefit on pretax loss for the nine months ended September 30, 2019. The earnings of the Company’s foreign entities for the three and nine months ended September 30, 2019, were $16.6 million and $21.5 million, respectively. The effective tax rate for the three months ended September 30, 2019, was positively impacted by the release of an uncertain tax position due to the statute of limitation expiration. The effective tax rate for the nine months ended September 30, 2019, was positively impacted by state income tax benefits on a domestic loss. In addition, the Company released a majority of its valuation allowance established against its U.S. foreign tax credit deferred tax asset, resulting in a non-cash benefit to income tax expense of approximately $18.5 million. The Company released the valuation allowance following the acquisition of Speedpay and has determined that it is more likely than not that it will be able to utilize the foreign tax credits in future years due to additional income provided by Speedpay.

The effective tax rate for the three months ended September 30, 2018, was 12%. The Company reported a tax charge for the nine months ended September 30, 2018, while reporting a pretax loss for the same period, resulting in an effective tax rate of (11)%. The earnings of the Company’s foreign entities for the three and nine months ended September 30, 2018, were $27.3 million and $32.7 million, respectively. The effective tax rates for the three and nine months ended September 30, 2018, were impacted by profits in certain foreign jurisdictions taxed at lower rates and equity compensation tax benefits, partially offset by lower domestic tax benefits resulting from the current GILTI tax and Base Erosion and Anti-Abuse Tax ("BEAT") charges.

The Company’s effective tax rate could fluctuate on a quarterly basis due to the occurrence of significant and unusual or infrequent items, such as vesting of stock-based compensation or foreign currency gains and losses. The Company’s effective tax rate could also fluctuate due to changes in the valuation of its deferred tax assets or liabilities, or by changes in tax laws, regulations, accounting principles, or interpretations thereof. In addition, the Company is occasionally subject to examination of its income tax returns by tax authorities in the jurisdictions it operates. The Company regularly assesses the likelihood of adverse outcomes resulting from these examinations to determine the adequacy of its provision for income taxes.

As of September 30, 2019, and December 31, 2018, the amount of unrecognized tax benefits for uncertain tax positions was $24.4 million and $28.4 million, respectively, excluding related liabilities for interest and penalties of $1.2 million as of September 30, 2019 and December 31, 2018.

The Company believes it is reasonably possible that the total amount of unrecognized tax benefits will decrease within the next 12 months by approximately $0.3 million, due to the settlement of various audits and the expiration of statutes of limitation.

13. Leases

The Company has operating leases for corporate offices and data centers. Excluding office leases, leases with an initial term of 12 months or less that do not include an option to purchase the underlying asset are not recorded on the condensed consolidated balance sheet and are expensed on a straight-line basis over the lease term.

The Company’s leases typically include certain renewal options to extend the leases for up to 25 years, some of which include options to terminate the leases within one year. The exercise of lease renewal options is at the Company’s sole discretion. The Company combines lease and non-lease components of its leases and currently has no leases with options to purchase the leased property. Payments of maintenance and property tax costs paid by the Company are accounted for as variable lease cost, which are expensed as incurred.

The components of lease cost are as follows (in thousands):

	Three Months Ended September 30, 2019	Nine Months Ended September 30, 2019
Operating lease cost	$ 4,491	$ 12,814
Variable lease cost	966	2,712
Sublease income	(105)	(385)
Total lease cost	$ 5,352	$ 15,141

Supplemental cash flow information related to leases is as follows (in thousands):

	Three Months Ended September 30, 2019	Nine Months Ended September 30, 2019
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	$ 4,622	$ 14,882
Right-of-use assets obtained in exchange for new lease obligations:		
Operating leases	$ 2,718	$ 8,920

Supplemental balance sheet information related to leases is as follows (in thousands, except lease term and discount rate):

	September 30, 2019
Assets:	
Operating lease right-of-use assets	$ 60,280
Liabilities:	
Other current liabilities	$ 15,112
Operating lease liabilities	48,281
Total operating lease liabilities	$ 63,393
Weighted average remaining operating lease term (years)	6.59
Weighted average operating lease discount rate	4.03%

The Company uses its incremental borrowing rate as the discount rate. As the Company enters into operating leases in multiple jurisdictions and denominated in currencies other than the U.S. dollar, judgment is used to determine the Company's incremental borrowing rate including (1) conversion of its subordinated borrowing rate (using published yield curves) to an unsubordinated and collateralized rate, (2) adjusting the rate to align with the term of each lease, and (3) adjusting the rate to incorporate the effects of the currency in which the lease is denominated.

Maturities on lease liabilities as of September 30, 2019, are as follows (in thousands):

Fiscal Year Ending December 31,	
Remainder of 2019	$ 4,060
2020	17,153
2021	12,565
2022	9,649
2023	7,455
Thereafter	21,351
Total lease payments	72,233
Less: imputed interest	8,840
Total lease liability	$ 63,393

Future payments under operating lease agreements accounted for under ASC 840, *Leases*, as of December 31, 2018, were as follows (in thousands):

Fiscal Year Ending December 31,		
2019	$	16,925
2020		14,212
2021		10,538
2022		8,178
2023		6,529
Thereafter		21,196
Total minimum lease payments	$	77,578

As of September 30, 2019, the Company has additional operating leases for office facilities that have not yet commenced with minimum lease payments of $2.8 million. These operating leases will commence between fiscal year 2019 and 2020 with lease terms of one to seven years.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Forward-Looking Statements

This report contains forward-looking statements based on current expectations that involve a number of risks and uncertainties. Generally, forward-looking statements do not relate strictly to historical or current facts and may include words or phrases such as “believes,” “will,” “expects,” “anticipates,” “intends,” and words and phrases of similar impact. The forward-looking statements are made pursuant to safe harbor provisions of the Private Securities Litigation Reform Act of 1995, as amended.

Forward-looking statements in this report include, but are not limited to, statements regarding future operations, business strategy, business environment, key trends, and, in each case, statements related to expected financial and other benefits. Many of these factors will be important in determining our actual future results. Any or all of the forward-looking statements in this report may turn out to be incorrect. They may be based on inaccurate assumptions or may not account for known or unknown risks and uncertainties. Consequently, no forward-looking statement can be guaranteed. Actual future results may vary materially from those expressed or implied in any forward-looking statements, and our business, financial condition and results of operations could be materially and adversely affected. In addition, we disclaim any obligation to update any forward-looking statements after the date of this report, except as required by law.

All of the forward-looking statements in this report are expressly qualified by the risk factors discussed in our filings with the Securities and Exchange Commission (“SEC”). Such factors include, but are not limited to, risks related to:

- increased competition;
- the performance of our strategic products, Universal Payments solutions;
- demand for our products;
- consolidations and failures in the financial services industry;
- customer reluctance to switch to a new vendor;
- failure to obtain renewals of customer contracts or to obtain such renewals on favorable terms;
- delay or cancellation of customer projects or inaccurate project completion estimates;
- the complexity of our products and services and the risk that they may contain hidden defects;
- compliance of our products with applicable legislation, governmental regulations, and industry standards;
- failing to comply with money transmitter rules and regulations;
- our compliance with privacy regulations;
- being subject to security breaches or viruses;
- our ability to adequately protect our intellectual property;

- increasing intellectual property rights litigation;
- certain payment funding methods expose us to the credit and/or operating risk of our clients;
- business interruptions or failure of our information technology and communication systems;
- our offshore software development activities;
- operating internationally;
- global economic conditions impact on demand for our products and services;
- attracting and retaining employees;
- potential future litigation;
- our sale of Community Financial Services (“CFS”) assets and liabilities to Fiserv, Inc. (“Fiserv”), including potential claims arising under the transaction agreement, the transition services agreement or with respect to retained liabilities;
- future acquisitions, strategic partnerships, and investments;
- risk of difficulties integrating E Commerce Group Products, Inc. and its subsidiary, Speedpay, Inc. (collectively referred to as "Speedpay"), which may cause us to fail to realize anticipated benefits of the acquisition;
- impairment of our goodwill or intangible assets;
- restrictions and other financial covenants in our debt;
- difficulty meeting our debt service requirements;
- the accuracy of our backlog estimates;
- exposure to unknown tax liabilities;
- the cyclical nature of our revenue and earnings and the accuracy of forecasts due to the concentration of revenue generating activity during the final weeks of each quarter; and
- volatility in our stock price.

The cautionary statements in this report expressly qualify all of our forward-looking statements.

The following discussion should be read together with our financial statements and related notes contained in this report and with the financial statements and related notes and Management’s Discussion & Analysis in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, filed March 1, 2019. Results for the three and nine months ended September 30, 2019, are not necessarily indicative of results that may be attained in the future.

Overview

ACI Worldwide, Inc., the Universal Payments (“UP”) company, powers electronic payments for more than 5,100 organizations around the world. More than 1,000 of the largest financial institutions and intermediaries, as well as thousands of leading global merchants, rely on ACI to execute approximately $14 trillion each day in payments and securities. In addition, thousands of organizations utilize our electronic bill payment and presentment (“EBPP”) services. Through our comprehensive suite of solutions, we deliver real-time, immediate payments capabilities and enable a complete omni-channel payments experience.

Our products are sold and supported through distribution networks covering three geographic regions – the Americas; Europe, Middle East, and Africa (“EMEA”); and Asia/Pacific. Each distribution network has its own globally coordinated sales force and supplements its sales force with independent reseller and/or distributor networks. Our products and solutions are used globally by banks, financial intermediaries, merchants and corporates, such as third-party electronic payment processors, payment associations, switch interchanges, and a wide range of transaction-generating endpoints, including ATMs, merchant point-of-sale (“POS”) terminals, bank branches, mobile phones, tablets, corporations, and Internet commerce sites. Accordingly, our business and operating results are influenced by trends such as information technology spending levels, the growth rate of electronic payments, mandated regulatory changes, and changes in the number and type of customers in the financial services industry. Our products are marketed under the ACI Worldwide, ACI Universal Payment, and ACI UP brands.

We derive a majority of our revenues from domestic operations and believe we have large opportunities for growth in international markets as well as continued expansion domestically in the United States. Refining our global infrastructure is a critical component of driving our growth. We have launched a globalization strategy, which includes elements intended to streamline our supply chain and maximize expertise in several geographic locations to support a growing international customer base and competitive needs.

We utilize our Irish subsidiaries to manage certain of our intellectual property rights and to oversee and manage certain international product development and commercialization efforts. We increased our software as a service ("SaaS") and platform as a service ("PaaS") capabilities with a data center in Ireland allowing our SaaS and PaaS solutions to be more-broadly offered in the European market. We also continue to grow centers of expertise in Timisoara, Romania and Pune and Bangalore in India, as well as key operational centers such as Cape Town, South Africa and in multiple locations in the United States.

Key trends that currently impact our strategies and operations include:

Increasing electronic payment transaction volumes. Electronic payment volumes continue to increase around the world, taking market share from traditional cash and check transactions. In their World Payments Report, Capgemini predicts non-cash transaction volumes will grow at an annual rate of 12.7%, or from 482.5 billion in 2016 to 876.4 billion in 2021, with varying growth rates based on the type of payment and part of the world. We leverage the growth in transaction volumes through the licensing of new systems to customers whose older systems cannot handle increased volume and through the sale of capacity upgrades to existing customers.

Adoption of real-time payments. Customer expectations, from both consumers and corporate, are driving the payments world to more real-time delivery. In the U.K., payments sent through the traditional ACH multi-day batch service can now be sent through the Faster Payments service giving almost immediate access to the funds, and this is being considered and implemented in several countries including Australia and the United States. In the U.S. market, National Automated Clearinghouse Association (“NACHA”) implemented phase 2 of Same Day ACH in September 2017. Corporate customers expect real-time information on the status of their payments instead of waiting for an end-of-day report. Regulators expect banks to be monitoring key measures like liquidity in real time. ACI’s focus has always been on the real-time execution of transactions and delivery of information through real-time tools, such as dashboards, so our experience will be valuable in addressing this trend.

Increasing competition. The electronic payments market is highly competitive and subject to rapid change. Our competition comes from in-house information technology departments, third-party electronic payment processors, and third-party software companies located both within and outside of the United States. Many of these companies are significantly larger than us and have significantly greater financial, technical, and marketing resources. As electronic payment transaction volumes increase, third-party processors tend to provide competition to our solutions, particularly among customers that do not seek to differentiate their electronic payment offerings or are eliminating banks from the payments service, reducing the need for our solutions. As consolidation in the financial services industry continues, we anticipate that competition for those customers will intensify.

Adoption of cloud technology. To leverage lower-cost computing technologies, some banks, financial intermediaries, merchants and corporates are seeking to transition their systems to make use of cloud technology. Our investments provide us the grounding to deliver cloud capabilities in the future. Market sizing data from Ovum indicates that spend on SaaS and PaaS payment systems is growing faster than spend on installed applications.

Electronic payments fraud and compliance. As electronic payment transaction volumes increase, organized criminal organizations continue to find ways to commit a growing volume of fraudulent transactions using a wide range of techniques. Banks, financial intermediaries, and merchants and corporates continue to seek ways to leverage new technologies to identify and prevent fraudulent transactions and other attacks such as denial of service attacks. Due to concerns with international terrorism and money laundering, banks and financial intermediaries in particular are being faced with increasing scrutiny and regulatory pressures. We continue to see opportunity to offer our fraud detection solutions to help customers manage the growing levels of electronic payments fraud and compliance activity.

Adoption of smartcard technology. In many markets, card issuers are being required to issue new cards with embedded chip technology, with the liability shift having gone into effect in 2015 in the United States. Chip-based cards are more secure, harder to copy, and offer the opportunity for multiple functions on one card (e.g., debit, credit, electronic purse, identification, health records, etc.). This results in greater card-not-present fraud (e.g., fraud at eCommerce sites).

Single Euro Payments Area (SEPA). The SEPA, primarily focused on the European economic community and the U.K., is designed to facilitate lower costs for cross-border payments and reduce timeframes for settling electronic payment transactions. The transition to SEPA payment mechanisms will drive more volume to these systems with the potential to cause banks to review the capabilities of the systems supporting these payments. Our Retail Payments and Real-Time Payments solutions facilitate key functions that help banks and financial intermediaries address these mandated regulations.

European Payment Service Directive (PSD2). PSD2, which was ratified by the European Parliament in 2015, required member states to implement new payments regulations in 2018. The XS2A provision effectively creates a new market opportunity where banks in European Union member countries must provide open API standards to customer data, thus allowing authorized third-party providers to enter the market.

Financial institution consolidation. Consolidation continues on a national and international basis, as banks and financial intermediaries seek to add market share and increase overall efficiency. Such consolidations have increased, and may continue to increase, in their number, size, and market impact as a result of recent economic conditions affecting the banking and financial industries. There are several potential negative effects of increased consolidation activity. Continuing consolidation of banks and financial intermediaries may result in a smaller number of existing and potential customers for our products and services. Consolidation of two of our customers could result in reduced revenues if the combined entity were to negotiate greater volume discounts or discontinue use of certain of our products. Additionally, if a non-customer and a customer combine and the combined entity decides to forego future use of our products, our revenue would decline. Conversely, we could benefit from the combination of a non-customer and a customer when the combined entity continues use of our products and, as a larger combined entity, increases its demand for our products and services. We tend to focus on larger banks and financial intermediaries as customers, often resulting in our solutions being the solutions that survive in the consolidated entity.

Global vendor sourcing. Global and regional banks, financial intermediaries, and merchants and corporates are aiming to reduce the costs in supplier management by picking suppliers who can service them across all their geographies instead of allowing each country operation to choose suppliers independently. Our global footprint from both a customer and a delivery perspective enable us to be successful in this globally sourced market. However, projects in these environments tend to be more complex and therefore of higher risk.

Electronic payments convergence. As electronic payment volumes grow and pressures to lower overall cost per transaction increase, banks and financial intermediaries are seeking methods to consolidate their payments processing across the enterprise. We believe that the strategy of using service-oriented architectures to allow for re-use of common electronic payment functions, such as authentication, authorization, routing and settlement, will become more common. Using these techniques, banks and financial intermediaries will be able to reduce costs, increase overall service levels, enable one-to-one marketing in multiple bank channels, leverage volumes for improved pricing and liquidity, and manage enterprise risk. Our product strategy is, in part, focused on this trend, by creating integrated payment functions that can be re-used by multiple bank channels, across both the consumer and wholesale bank. While this trend presents an opportunity for us, it may also expand the competition from third-party electronic payment technology and service providers specializing in other forms of electronic payments. Many of these providers are larger than us and have significantly greater financial, technical and marketing resources.

Mobile banking and payments. There is a growing demand for the ability to carry out banking services or make payments using a mobile phone. Recent statistics from Javelin Strategy & Research, a subsidiary of Greenwich Associates, show that 50% of adults in the United States use their phone for mobile banking. The use of phones for mobile banking is expected to grow to 81% in 2020. Our customers have been making use of existing products to deploy mobile banking, mobile payments, and mobile commerce solutions for their customers in many countries. In addition, ACI has invested in mobile products of our own and via partnerships to support mobile functionality in the marketplace.

Electronic bill payment and presentment. EBPP encompasses all facets of bill payment, including biller direct, where customers initiate payments on biller websites, the consolidator model, where customers initiate payments on a financial institution’s website, and walk-in bill payment, as one might find in a convenience store. The EBPP market continues to grow as consumers move away from traditional forms of paper-based payments. Nearly three out of four (73%) online payments are made at the billers’ sites, rather than through banking websites, up 11% since 2010. The biller-direct solutions are seeing strong growth as billers migrate these services to outsourcers, such as ACI, from legacy systems built in house. We believe that EBPP remains ripe for outsourcing, as a significant amount of biller-direct transactions are still processed in house. As billers seek to manage costs and improve efficiency, we believe that they will continue to look to third-party EBPP vendors that can offer a complete solution for their billing needs.

Several other factors related to our business may have a significant impact on our operating results from year to year. For example, the accounting rules governing the timing of revenue recognition are complex and it can be difficult to estimate when we will recognize revenue generated by a given transaction. Factors such as creditworthiness of the customer and timing of transfer of control or acceptance of our products may cause revenues related to sales generated in one period to be deferred and recognized in later periods. For arrangements in which services revenue is deferred, related direct and incremental costs may also be deferred. Additionally, while the majority of our contracts are denominated in the U.S. dollar, a substantial portion of our sales are made, and some of our expenses are incurred, in the local currency of countries other than the United States. Fluctuations in currency exchange rates in a given period may result in the recognition of gains or losses for that period.

We continue to seek ways to grow through organic sources, partnerships, alliances, and acquisitions. We continually look for potential acquisitions designed to improve our solutions' breadth or provide access to new markets. As part of our acquisition strategy, we seek acquisition candidates that are strategic, capable of being integrated into our operating environment, and accretive to our financial performance.

Acquisition

Speedpay

On May 9, 2019, we acquired E Commerce Group Products, Inc. ("ECG"), a subsidiary of The Western Union Company ("Western Union"), along with ECG's subsidiary, Speedpay, Inc. (collectively referred to as "Speedpay") for $754.1 million in cash, including working capital adjustments, pursuant to a Stock Purchase Agreement, among the Company, Western Union, and ACI Worldwide Corp., our wholly owned subsidiary. The combination of the Company and Speedpay bill pay solutions serves more than 4,000 customers across the U.S., bringing expanded reach in existing and complementary market segments such as consumer finance, insurance, healthcare, higher education, utilities, government, and mortgage. The acquisition of Speedpay increases the scale of our On Demand platform business and allows the acceleration of platform innovation.

To fund the acquisition, we amended our existing Credit Agreement, dated February 24, 2017, for an additional $500.0 million senior secured term loan, in addition to drawing $250.0 million on the available Revolving Credit Facility. See Note 4, *Debt*, to our unaudited condensed consolidated financial statements in Part I of this Form 10-Q for terms of the Credit Agreement. The remaining acquisition consideration was funded with cash on hand.

Backlog

Backlog is comprised of:

- Committed Backlog, which includes (1) contracted revenue that will be recognized in future periods (contracted but not recognized) from software license fees, maintenance fees, services fees, and SaaS and PaaS fees specified in executed contracts (including estimates of variable consideration if required under ASC 606) and included in the transaction price for those contracts, which includes deferred revenue and amounts that will be invoiced and recognized as revenue in future periods and (2) estimated future revenues from software license fees, maintenance fees, services fees, and SaaS and PaaS fees specified in executed contracts.
- Renewal Backlog, which includes estimated future revenues from assumed contract renewals to the extent we believe recognition of the related revenue will occur within the corresponding backlog period.

We have historically included assumed renewals in backlog estimates based upon automatic renewal provisions in the executed contract and our historic experience with customer renewal rates.

Our 60-month backlog estimates are derived using the following key assumptions:

- License arrangements are assumed to renew at the end of their committed term or under the renewal option stated in the contract at a rate consistent with historical experience. If the license arrangement includes extended payment terms, the renewal estimate is adjusted for the effects of a significant financing component.
- Maintenance fees are assumed to exist for the duration of the license term for those contracts in which the committed maintenance term is less than the committed license term.
- SaaS and PaaS arrangements are assumed to renew at the end of their committed term at a rate consistent with our historical experiences.
- Foreign currency exchange rates are assumed to remain constant over the 60-month backlog period for those contracts stated in currencies other than the U.S. dollar.
- Our pricing policies and practices are assumed to remain constant over the 60-month backlog period.

In computing our 60-month backlog estimate, the following items are specifically not taken into account:

- Anticipated increases in transaction, account, or processing volumes by our customers.
- Optional annual uplifts or inflationary increases in recurring fees.
- Services engagements, other than SaaS and PaaS arrangements, are not assumed to renew over the 60-month backlog period.
- The potential impact of consolidation activity within our markets and/or customers.

We review our customer renewal experience on an annual basis. The impact of this review and subsequent updates may result in a revision to the renewal assumptions used in computing the 60-month backlog estimates. In the event a significant revision to renewal assumptions is determined to be necessary, prior periods will be adjusted for comparability purposes.

The following table sets forth our 60-month backlog estimate, by reportable segment, as of September 30, 2019, June 30, 2019, March 31, 2019, and December 31, 2018 (in millions). The September 30, 2019, 60-month backlog estimate includes approximately $1.5 billion as a result of the acquisition of Speedpay. Dollar amounts reflect foreign currency exchange rates as of each period end.

	September 30, 2019	June 30, 2019	March 31, 2019	December 31, 2018
ACI On Premise	$ 1,925	$ 1,880	$ 1,861	$ 1,875
ACI On Demand	3,756	3,813	2,290	2,299
Total	$ 5,681	$ 5,693	$ 4,151	$ 4,174

	September 30, 2019	June 30, 2019	March 31, 2019	December 31, 2018
Committed	$ 2,003	$ 2,105	$ 1,734	$ 1,832
Renewal	3,678	3,588	2,417	2,342
Total	$ 5,681	$ 5,693	$ 4,151	$ 4,174

Estimates of future financial results require substantial judgment and are based on several assumptions, as described above. These assumptions may turn out to be inaccurate or wrong for reasons outside of management’s control. For example, our customers may attempt to renegotiate or terminate their contracts for many reasons, including mergers, changes in their financial condition, or general changes in economic conditions in the customer’s industry or geographic location. We may also experience delays in the development or delivery of products or services specified in customer contracts, which may cause the actual renewal rates and amounts to differ from historical experiences. Changes in foreign currency exchange rates may also impact the amount of revenue recognized in future periods. Accordingly, there can be no assurance that amounts included in backlog estimates will generate the specified revenues or that the actual revenues will be generated within the corresponding 60-month period. Additionally, because certain components of Committed Backlog and all of Renewal Backlog estimates are operating metrics, the estimates are not required to be subject to the same level of internal review or controls as contracted but not recognized Committed Backlog.

RESULTS OF OPERATIONS

The following table presents the condensed consolidated statements of operations, as well as the percentage relationship to total revenues for items included in our condensed consolidated statements of operations (in thousands):

Three Month Period Ended September 30, 2019, Compared to the Three Month Period Ended September 30, 2018

	Three Months Ended September 30,					
	2019				2018	
	Amount	% of Total Revenue	$ Change vs 2018	% Change vs 2018	Amount	% of Total Revenue
Revenues:						
Software as a service and platform as a service	$ 192,952	54 %	$ 88,433	85 %	$ 104,519	43 %
License	92,058	26 %	23,094	33 %	68,964	28 %
Maintenance	52,638	15 %	(1,735)	(3)%	54,373	22 %
Services	17,253	5 %	(416)	(2)%	17,669	7 %
Total revenues	354,901	100 %	109,376	45 %	245,525	100 %
Operating expenses:						
Cost of revenue	174,168	49 %	71,695	70 %	102,473	42 %
Research and development	36,543	10 %	535	1 %	36,008	15 %
Selling and marketing	30,417	9 %	2,165	8 %	28,252	12 %
General and administrative	27,286	8 %	(2,251)	(8)%	29,537	12 %
Depreciation and amortization	31,169	9 %	10,273	49 %	20,896	9 %
Total operating expenses	299,583	84 %	82,417	38 %	217,166	88 %
Operating income	55,318	16 %	26,959	95 %	28,359	12 %
Other income (expense):						
Interest expense	(18,987)	(5)%	(6,414)	51 %	(12,573)	(5)%
Interest income	2,988	1 %	225	8 %	2,763	1 %
Other, net	(2,369)	(1)%	(1,065)	82 %	(1,304)	(1)%
Total other income (expense)	(18,368)	(5)%	(7,254)	65 %	(11,114)	(5)%
Income before income taxes	36,950	10 %	19,705	114 %	17,245	7 %
Income tax expense	5,136	1 %	3,124	155 %	2,012	1 %
Net income	$ 31,814	9 %	$ 16,581	109 %	$ 15,233	6 %

Revenues

Total revenue for the three months ended September 30, 2019, increased $109.4 million, or 45%, as compared to the same period in 2018, of which $87.7 million, or 36%, was due to the acquisition of Speedpay.

Total revenue was $3.1 million lower for the three months ended September 30, 2019, compared to the same period in 2018, due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of the acquisition of Speedpay and foreign currency, total revenue for the three months ended September 30, 2019, increased $24.7 million, or 10%, compared to the same period in 2018.

Software as a Service (“SaaS”) and Platform as a Service (“PaaS”) Revenue

The Company’s SaaS arrangements allow customers to use certain software solutions (without taking possession of the software) in a single-tenant cloud environment on a subscription basis. The Company’s PaaS arrangements allow customers to use certain software solutions (without taking possession of the software) in a multi-tenant cloud environment on a subscription or consumption basis. Included in SaaS and PaaS revenue are fees paid by our customers for use of our Biller solutions. Biller-related fees may be paid by our clients or directly by their customers and may be a percentage of the underlying transaction amount, a fixed fee per executed transaction or a monthly fee for each customer enrolled. SaaS and PaaS costs include payment card interchange fees, the amounts payable to banks and payment card processing fees, which are included in cost of revenue in the condensed consolidated statements of operations. All fees from SaaS and PaaS arrangements that do not qualify for treatment as a distinct performance obligation, which includes set-up fees, implementation or customization services, and product support services, are included in SaaS and PaaS revenue.

SaaS and PaaS revenue increased $88.4 million, or 85%, during the three months ended September 30, 2019, as compared to the same period in 2018, of which $87.7 million, or 84%, was due to the acquisition of Speedpay. SaaS and PaaS revenue was $0.6 million lower for the three months ended September 30, 2019, compared to the same period in 2018 due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of the acquisition of Speedpay and foreign currency, SaaS and PaaS revenue for the three months ended September 30, 2019, increased $1.2 million, or 1%, compared to the same period in 2018.

License Revenue

Customers purchase the right to license ACI software under multi-year, time-based software license arrangements that vary in length but are generally five years. Under these arrangements the software is installed at the customer's location (i.e. on-premise). Within these agreements are specified capacity limits typically based on customer transaction volume. ACI employs measurement tools that monitor the number of transactions processed by customers and if contractually specified limits are exceeded, additional fees are charged for the overage. Capacity overages may occur at varying times throughout the term of the agreement depending on the product, the size of the customer, and the significance of customer transaction volume growth. Depending on specific circumstances, multiple overages or no overages may occur during the term of the agreement.

Included in license revenue are license and capacity fees that are payable at the inception of the agreement or annually (initial license fees). License revenue also includes license and capacity fees payable quarterly or monthly due to negotiated customer payment terms (monthly license fees). The Company recognizes revenue in advance of billings for software license arrangements with extended payment terms and adjusts for the effects of the financing component, if significant.

License revenue increased $23.1 million, or 33%, during the three months ended September 30, 2019, as compared to the same period in 2018. License revenue was $1.6 million lower for the three months ended September 30, 2019, compared to the same period in 2018 due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of foreign currency, license revenue for the three months ended September 30, 2019, increased $24.7 million, or 36%, compared to the same period in 2018.

The increase in total license revenue was primarily driven by the timing and relative size of license and capacity events during the three months ended September 30, 2019, as compared to the same period in 2018.

Maintenance Revenue

Maintenance revenue includes standard and premium maintenance and any post contract support fees received from customers for the provision of product support services.

Maintenance revenue decreased $1.7 million, or 3%, during the three months ended September 30, 2019, as compared to the same period in 2018. Maintenance revenue was $0.7 million lower for the three months ended September 30, 2019, as compared to the same period in 2018 due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of foreign currency, maintenance revenue for the three months ended September 30, 2019, decreased $1.0 million, or 2%, compared to the same period in 2018.

Services Revenue

Services revenue includes fees earned through implementation services and other professional services. Implementation services include product installations, product configurations, and custom software modifications ("CSMs"). Other professional services include business consultancy, technical consultancy, on-site support services, CSMs, product education, and testing services. These services include new customer implementations as well as existing customer migrations to new products or new releases of existing products.

Services revenue decreased $0.4 million, or 2%, during the three months ended September 30, 2019, as compared to the same period in 2018. Services revenue was $0.3 million lower for the three months ended September 30, 2019, as compared to the same period in 2018 due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of foreign currency, services revenue for the three months ended September 30, 2019, decreased $0.1 million, or 1%, compared to the same period in 2018.

Operating Expenses

Total operating expenses for the three months ended September 30, 2019, increased $82.4 million, or 38%, as compared to the same period in 2018, of which $80.2 million, or 37%, was due to the acquisition of Speedpay and $0.9 million was due to significant transaction and integration-related expenses associated with the acquisition of Speedpay.

Total operating expenses for the three months ended September 30, 2018, included $1.5 million of significant integration and divestiture-related expenses. Total operating expenses were $2.1 million lower for the three months ended September 30, 2019, compared to the same period in 2018, due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of the acquisition of Speedpay, significant acquisition and integration-related expenses, and foreign currency, total operating expenses for the three months ended September 30, 2019, increased $4.9 million, or 2%, compared to the same period in 2018, primarily due to higher cost of revenue and depreciation and amortization expense, partially offset by lower research and development, selling and marketing, and general and administrative expense.

Cost of Revenue

Cost of revenue includes costs to provide SaaS and PaaS services, third-party royalties, amortization of purchased and developed software for resale, the costs of maintaining our software products, as well as the costs required to deliver, install, and support software at customer sites. SaaS and PaaS service costs include payment card interchange fees, amounts payable to banks, and payment card processing fees. Maintenance costs include the efforts associated with providing the customer with upgrades, 24-hour help desk, post go-live (remote) support, and production-type support for software that was previously installed at a customer location. Service costs include human resource costs and other incidental costs such as travel and training required for both pre go-live and post go-live support. Such efforts include project management, delivery, product customization and implementation, installation support, consulting, configuration, and on-site support.

Cost of revenue increased $71.7 million, or 70%, during the three months ended September 30, 2019, compared to the same period in 2018, of which $65.8 million, or 64%, was due to the acquisition of Speedpay. Cost of revenue was $0.8 million lower for the three months ended September 30, 2019, as compared to the same period in 2018, due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of the acquisition of Speedpay and foreign currency, cost of revenue increased $6.7 million, or 7%, for the three months ended September 30, 2019, as compared to the same period in 2018, primarily due to a $5.5 million increase in payment card interchange and processing fees.

Research and Development

Research and development ("R&D") expenses are primarily human resource costs related to the creation of new products, improvements made to existing products as well as compatibility with new operating system releases and generations of hardware.

R&D expense increased $0.5 million, or 1%, during the three months ended September 30, 2019, as compared to the same period in 2018. The acquisition of Speedpay contributed $2.7 million to R&D expense during the three months ended September 30, 2019. R&D expense was $0.5 million lower for the three months ended September 30, 2019, as compared to the same period in 2018, due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of the acquisition of Speedpay and foreign currency, R&D expense decreased $1.6 million, or 4%, for the three months ended September 30, 2019, as compared to the same period in 2018, due to a decrease in personnel and related expenses.

Selling and Marketing

Selling and marketing includes both the costs related to selling our products to current and prospective customers as well as the costs related to promoting the Company, its products and the research efforts required to measure customers' future needs and satisfaction levels. Selling costs are primarily the human resource and travel costs related to the effort expended to license our products and services to current and potential clients within defined territories and/or industries as well as the management of the overall relationship with customer accounts. Selling costs also include the costs associated with assisting distributors in their efforts to sell our products and services in their respective local markets. Marketing costs include costs incurred to promote the Company and its products, perform or acquire market research to help the Company better understand impending changes in customer demand for and of our products, and the costs associated with measuring customers' opinions toward the Company, our products and personnel.

Selling and marketing expense increased $2.2 million, or 8%, during the three months ended September 30, 2019, as compared to the same period in 2018. The acquisition of Speedpay contributed $2.9 million to selling and marketing expense during the three months ended September 30, 2019. Selling and marketing expense was $0.4 million lower for the three months ended September 30, 2019, as compared to the same period in 2018, due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of the acquisition of Speedpay and foreign currency, selling and marketing expense decreased $0.3 million, or 1%, for the three months ended September 30, 2019, as compared to the same period in 2018, due to a decrease in personnel and related expenses.

General and Administrative

General and administrative expenses are primarily human resource costs including executive salaries and benefits, personnel administration costs, and the costs of corporate support functions such as legal, administrative, human resources, and finance and accounting.

General and administrative expense decreased $2.3 million, or 8%, during the three months ended September 30, 2019, as compared to the same period in 2018. The acquisition of Speedpay and significant transaction and integration-related expenses associated with the acquisition of Speedpay contributed $0.5 million and $0.7 million, respectively, during the three months ended September 30, 2019. General and administrative expense for the three months ended September 30, 2018, included $1.3 million of significant integration and divestiture-related expenses. General and administrative expense was $0.1 million lower for the three months ended September 30, 2019, as compared to the same period in 2018, due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of the acquisition of Speedpay, significant acquisition and integration-related expenses, and foreign currency, general and administrative expense decreased $2.0 million, or 7%, for the three months ended September 30, 2019, as compared to the same period in 2018, primarily due to a decrease in personnel and related expenses.

Depreciation and Amortization

Depreciation and amortization increased $10.3 million, or 49%, during the three months ended September 30, 2019, as compared to the same period in 2018, of which $8.3 million, or 40%, was due to the acquisition of Speedpay. Depreciation and amortization was $0.2 million lower for the three months ended September 30, 2019, as compared to the same period in 2018, due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of the acquisition of Speedpay and foreign currency, depreciation and amortization increased $2.2 million, or 11%, for the three months ended September 30, 2019, as compared to the same period in 2018, due to higher amortization of acquired intangible assets.

Other Income and Expense

Interest expense for the three months ended September 30, 2019, increased $6.4 million, or 51%, as compared to the same period in 2018, primarily due to higher comparative debt balances.

Interest income includes the portion of software license fees paid by customers under extended payment terms that is attributed to the significant financing component. Interest income for the three months ended September 30, 2019, increased $0.2 million, or 8%, as compared to the same period in 2018.

Other, net consists of foreign currency gain or loss. Foreign currency loss for the three months ended September 30, 2019 and 2018, was $2.4 million and $1.3 million, respectively.

Income Taxes

Refer to Note 12, *Income Taxes,* to our unaudited condensed consolidated financial statements in Part I of this Form 10-Q for additional information.

Nine Month Period Ended September 30, 2019, Compared to the Nine Month Period Ended September 30, 2018

	Nine Months Ended September 30,					
	2019				2018	
	Amount	% of Total Revenue	$ Change vs 2018	% Change vs 2018	Amount	% of Total Revenue
Revenues:						
Software as a service and platform as a service	$ 474,008	55 %	$ 151,609	47 %	$ 322,399	47 %
License	165,677	19 %	23,112	16 %	142,565	21 %
Maintenance	159,671	19 %	(6,409)	(4)%	166,080	24 %
Services	59,018	7 %	232	— %	58,786	9 %
Total revenues	858,374	100 %	168,544	24 %	689,830	100 %
Operating expenses:						
Cost of revenue	444,349	52 %	118,279	36 %	326,070	47 %
Research and development	111,972	13 %	1,311	1 %	110,661	16 %
Selling and marketing	92,809	11 %	(496)	(1)%	93,305	14 %
General and administrative	108,122	13 %	21,099	24 %	87,023	13 %
Depreciation and amortization	79,779	9 %	16,505	26 %	63,274	9 %
Total operating expenses	837,031	98 %	156,698	23 %	680,333	99 %
Operating income	21,343	2 %	11,846	125 %	9,497	1 %
Other income (expense):						
Interest expense	(45,924)	(5)%	(14,269)	45 %	(31,655)	(5)%
Interest income	9,018	1 %	769	9 %	8,249	1 %
Other, net	(2,879)	— %	157	(5)%	(3,036)	— %
Total other income (expense)	(39,785)	(5)%	(13,343)	50 %	(26,442)	(4)%
Loss before income taxes	(18,442)	(2)%	(1,497)	9 %	(16,945)	(2)%
Income tax expense (benefit)	(30,018)	(3)%	(31,842)	(1,746)%	1,824	— %
Net income (loss)	$ 11,576	1 %	$ 30,345	(162)%	$ (18,769)	(3)%

Revenues

Total revenue for the nine months ended September 30, 2019, increased $168.5 million, or 24%, as compared to the same period in 2018, of which $137.1 million, or 20%, was due to the acquisition of Speedpay.

Total revenue was $11.3 million lower for the nine months ended September 30, 2019, compared to the same period in 2018, due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of the acquisition of Speedpay and foreign currency, total revenue for the nine months ended September 30, 2019, increased $42.8 million, or 6%, compared to the same period in 2018.

Software as a Service (“SaaS”) and Platform as a Service (“PaaS”) Revenue

SaaS and PaaS revenue increased $151.6 million, or 47%, during the nine months ended September 30, 2019, as compared to the same period in 2018, of which $137.1 million, or 43%, was due to the acquisition of Speedpay. SaaS and PaaS revenue was $2.2 million lower for the nine months ended September 30, 2019, compared to the same period in 2018 due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of the acquisition of Speedpay and foreign currency, SaaS and PaaS revenue for the nine months ended September 30, 2019, increased $16.8 million, or 5%, compared to the same period in 2018, of which $8.6 million is attributable to acceleration of recurring revenue associated with customer-related consolidation activity and $8.2 million is related to new customers adopting our SaaS and PaaS offerings and existing customers adding new functionality or increasing transaction volumes.

License Revenue

License revenue increased $23.1 million, or 16%, during the nine months ended September 30, 2019, as compared to the same period in 2018. License revenue was $4.3 million lower for the nine months ended September 30, 2019, compared to the same period in 2018 due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of foreign currency, license revenue for the nine months ended September 30, 2019, increased $27.4 million, or 19%, compared to the same period in 2018.

The increase in license revenue was primarily driven by the timing and relative size of license and capacity events during the nine months ended September 30, 2019, as compared to the same period in 2018.

Maintenance Revenue

Maintenance revenue decreased $6.4 million, or 4%, during the nine months ended September 30, 2019, as compared to the same period in 2018. Maintenance revenue was $3.6 million lower for the nine months ended September 30, 2019, as compared to the same period in 2018 due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of foreign currency, maintenance revenue for the nine months ended September 30, 2019, decreased $2.8 million, or 2%, compared to the same period in 2018.

Services Revenue

Services revenue increased $0.2 million, during the nine months ended September 30, 2019, as compared to the same period in 2018. Services revenue was $1.3 million lower for the nine months ended September 30, 2019, as compared to the same period in 2018 due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of foreign currency, services revenue for the nine months ended September 30, 2019, increased $1.5 million, or 3%, compared to the same period in 2018.

Operating Expenses

Total operating expenses for the nine months ended September 30, 2019, increased $156.7 million, or 23%, as compared to the same period in 2018, of which $121.9 million, or 18%, was due to the acquisition of Speedpay and $22.2 million, or 3%, was due to significant transaction and integration-related expenses associated with the acquisition of Speedpay.

Total operating expenses for the nine months ended September 30, 2018, included $6.5 million of significant integration and divestiture-related expenses. Total operating expenses were $10.9 million lower for the nine months ended September 30, 2019, compared to the same period in 2018, due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of the acquisition of Speedpay, significant acquisition and integration-related expenses, and foreign currency, total operating expenses for the nine months ended September 30, 2019, increased $30.1 million, or 5%, compared to the same period in 2018, primarily due to higher cost of revenue, general and administrative, research and development, and depreciation and amortization expenses, partially offset by lower selling and marketing.

Cost of Revenue

Cost of revenue increased $118.3 million, or 36%, during the nine months ended September 30, 2019, compared to the same period in 2018, of which $99.7 million, or 31%, was due to the acquisition of Speedpay. Cost of revenue was $4.1 million lower for the nine months ended September 30, 2019, as compared to the same period in 2018, due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of the acquisition of Speedpay and foreign currency, cost of revenue increased $22.7 million, or 7%, for the nine months ended September 30, 2019, as compared to the same period in 2018, primarily due to a $15.4 million increase in payment card interchange and processing fees and a $7.3 million increase in personnel and related expenses.

Research and Development

R&D expense increased $1.3 million, or 1%, during the nine months ended September 30, 2019, as compared to the same period in 2018. The acquisition of Speedpay contributed $4.5 million, or 4%, to R&D expense during the nine months ended September 30, 2019. R&D expense was $2.9 million lower for the nine months ended September 30, 2019, as compared to the same period in 2018, due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of the acquisition of Speedpay and foreign currency, R&D expense decreased $0.3 million for the nine months ended September 30, 2019, as compared to the same period in 2018.

Selling and Marketing

Selling and marketing expense decreased $0.5 million, or 1%, during the nine months ended September 30, 2019, as compared to the same period in 2018. The acquisition of Speedpay contributed $4.1 million to selling and marketing expense during the nine months ended September 30, 2019. Selling and marketing expense was $2.2 million lower for the nine months ended September 30, 2019, as compared to the same period in 2018, due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of the acquisition of Speedpay and foreign currency, selling and marketing expense decreased $2.4 million, or 3%, for the nine months ended September 30, 2019, as compared to the same period in 2018, due to a decrease in personnel and related expense.

General and Administrative

General and administrative expense increased $21.1 million, or 24%, during the nine months ended September 30, 2019, as compared to the same period in 2018, of which $1.2 million, or 1%, was due to the acquisition of Speedpay. Significant transaction and integration-related expenses associated with the acquisition of Speedpay contributed $21.8 million during the nine months ended September 30, 2019. General and administrative expense for the nine months ended September 30, 2018, included $5.8 million of significant integration and divestiture-related expenses. General and administrative expense was $0.9 million lower for the nine months ended September 30, 2019, as compared to the same period in 2018, due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of the acquisition of Speedpay, significant acquisition and integration-related expense, and foreign currency, general and administrative expense increased $4.7 million, or 6%, for the nine months ended September 30, 2019, as compared to the same period in 2018, primarily due to an increase in personnel and related expenses.

Depreciation and Amortization

Depreciation and amortization increased $16.5 million, or 26%, during the nine months ended September 30, 2019, as compared to the same period in 2018, of which $12.5 million, or 20%, was due to the acquisition of Speedpay. Depreciation and amortization was $0.9 million lower for the nine months ended September 30, 2019, as compared to the same period in 2018, due to the impact of foreign currencies weakening against the U.S. dollar. Excluding the impact of the acquisition of Speedpay and foreign currency, depreciation and amortization increased $5.0 million, or 8%, for the nine months ended September 30, 2019, as compared to the same period in 2018, due to higher amortization on acquired intangible assets.

Other Income and Expense

Interest expense for the nine months ended September 30, 2019, increased $14.3 million, or 45%, as compared to the same period in 2018, of which $1.8 million related to royalty payments recorded during the first quarter of 2019. Excluding the impact of interest expense related to royalty payments, interest expense for the nine months ended September 30, 2019, increased $12.5 million, or 39%, as compared to the same period in 2018, primarily due to higher comparative debt balances.

Interest income for the nine months ended September 30, 2019, increased $0.8 million, or 9%, as compared to the same period in 2018.

Other, net consists of foreign currency gain or loss. Foreign currency loss for the nine months ended September 30, 2019 and 2018, was $2.9 million and $3.0 million, respectively.

Income Taxes

Refer to Note 12, *Income Taxes*, to our unaudited condensed consolidated financial statements in Part I of this Form 10-Q for additional information.

Segment Results

We report financial performance based on our segments, ACI On Premise and ACI On Demand, and analyze Segment Adjusted EBITDA as a measure of segment profitability.

Our Chief Executive Officer is also our chief operating decision maker (“CODM”). The CODM, together with other senior management personnel, focus their review on consolidated financial information and the allocation of resources based on operating results, including revenues and Segment Adjusted EBITDA, for each segment, separate from the corporate operations.

ACI On Premise serves customers who manage their software on site. These on-premise customers use the Company’s software to develop sophisticated solutions, which are often part of a larger system located and managed at the customer specified site. These customers require a level of control and flexibility that ACI On Premise solutions can offer, and they have the resources and expertise to take a lead role in managing these solutions.

ACI On Demand serves the needs of banks, merchants and corporates who use payments to facilitate their core business. These on-demand solutions are maintained and delivered through the cloud via our global data centers and are available in either a single-tenant environment for SaaS offerings, or in a multi-tenant environment for PaaS offerings.

Revenue is attributed to the reportable segments based upon the product sold and mechanism for delivery to the customer. Expenses are attributed to the reportable segments in one of three methods, (1) direct costs of the segment, (2) labor costs that can be attributed based upon time tracking for individual products, or (3) costs that are allocated. Allocated costs are generally marketing and sales related activities as well as information technology and facilities related expense for which multiple segments benefit. We also allocate certain depreciation costs to the segments.

Segment Adjusted EBITDA is the measure reported to the CODM for purposes of making decisions on allocating resources and assessing the performance of our segments and, therefore, Segment Adjusted EBITDA is presented in conformity with ASC 280, *Segment Reporting*. Segment Adjusted EBITDA is defined as earnings (loss) from operations before interest, income tax expense (benefit), depreciation and amortization ("EBITDA") adjusted to exclude stock-based compensation, and net other income (expense).

Corporate and unallocated expenses consist of the corporate overhead costs that are not allocated to reportable segments. These overhead costs relate to human resources, finance, legal, accounting, merger and acquisition activity, and other costs that are not considered when management evaluates segment performance.

The following is selected financial data for our reportable segments (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	**2018**	**2019**	**2018**
Revenue				
ACI On Premise	$ 161,949	$ 141,006	$ 383,075	$ 367,431
ACI On Demand	192,952	104,519	475,299	322,399
Total revenue	$ 354,901	$ 245,525	$ 858,374	$ 689,830
Segment Adjusted EBITDA				
ACI On Premise	$ 99,553	$ 77,819	$ 184,890	$ 171,477
ACI On Demand	18,561	3,270	35,639	(4,327)
Depreciation and amortization	(33,913)	(23,545)	(88,543)	(72,889)
Stock-based compensation expense	(9,371)	(6,575)	(30,328)	(20,642)
Corporate and unallocated expenses	(19,512)	(22,610)	(80,315)	(64,122)
Interest, net	(15,999)	(9,810)	(36,906)	(23,406)
Other, net	(2,369)	(1,304)	(2,879)	(3,036)
Income (loss) before income taxes	$ 36,950	$ 17,245	$ (18,442)	$ (16,945)
Depreciation and amortization				
ACI On Premise	$ 2,963	$ 2,772	$ 9,012	$ 8,596
ACI On Demand	9,059	7,906	25,110	23,468
Corporate	21,891	12,867	54,421	40,825
Total depreciation and amortization	$ 33,913	$ 23,545	$ 88,543	$ 72,889
Stock-based compensation expense				
ACI On Premise	$ 2,227	$ 1,806	$ 6,234	$ 5,111
ACI On Demand	2,389	1,802	6,554	5,099
Corporate	4,755	2,967	17,540	10,432
Total stock-based compensation expense	$ 9,371	$ 6,575	$ 30,328	$ 20,642

ACI On Premise Segment Adjusted EBITDA increased $21.7 million for the three months ended September 30, 2019, compared to the same period in 2018, primarily due to a $20.9 million increase in revenue.

ACI On Premise Segment Adjusted EBITDA increased $13.4 million for the nine months ended September 30, 2019, compared to the same period in 2018, primarily due to a $15.6 million increase in revenue, offset by a $2.2 million increase in operating expense.

ACI On Demand Segment Adjusted EBITDA increased $15.3 million for the three months ended September 30, 2019, compared to the same period in 2018, of which $16.2 million was due to the acquisition of Speedpay. Excluding the impact of the acquisition of Speedpay, ACI On Demand Segment Adjusted EBITDA decreased $0.9 million, primarily due to a $0.7 million increase in revenue, offset by a $1.6 million increase in operating expense.

ACI On Demand Segment Adjusted EBITDA increased $40.0 million for the nine months ended September 30, 2019, compared to the same period in 2018, of which $28.2 million was due to the acquisition of Speedpay. Excluding the impact of the acquisition of Speedpay, ACI On Demand Segment Adjusted EBITDA increased $11.9 million, primarily due to a $16.0 million increase in revenue, partially offset by a $4.1 million increase in operating expense.

Liquidity and Capital Resources

General

Our primary liquidity needs are: (i) to fund normal operating expenses; (ii) to meet the interest and principal requirements of our outstanding indebtedness; and (iii) to fund acquisitions, capital expenditures, and lease payments. We believe these needs will be satisfied using cash flow generated by our operations, our cash and cash equivalents, and available borrowings under our revolving credit facility.

Available Liquidity

The following table sets forth our available liquidity for the periods indicated (in thousands):

	September 30, 2019	December 31, 2018
Cash and cash equivalents	$ 121,581	$ 148,502
Availability under revolving credit facility	235,000	500,000
Total liquidity	$ 356,581	$ 648,502

The decrease in total liquidity is primarily attributable to $265.0 million of outstanding revolving credit facility borrowings and $37.3 million of payments to purchase property and equipment and software and distribution rights, and $35.6 million of payments related to stock repurchases, partially offset by positive operating cash flows.

The Company and Official Payments Corporation, a wholly owned subsidiary, maintain a $140.0 million uncommitted overdraft facility with Bank of America, N.A. The overdraft facility acts as a secured loan under the terms of the Credit Agreement to provide an additional funding mechanism for timing differences that can occur in the bill payment settlement process. As of September 30, 2019, the full $140.0 million was available.

Cash and cash equivalents consist of highly liquid investments with original maturities of three months or less. As of September 30, 2019, we had $121.6 million of cash and cash equivalents, of which $44.0 million was held by our foreign subsidiaries. If these funds were needed for our operations in the U.S., we may potentially be required to accrue and pay foreign and U.S. state income taxes to repatriate these funds. As of September 30, 2019, only the earnings in our Indian foreign subsidiaries are indefinitely reinvested. The earnings of all other foreign entities are no longer indefinitely reinvested. We are also permanently reinvested for outside book/tax basis difference related to foreign subsidiaries. These outside basis differences could reverse through sales of the foreign subsidiaries, as well as various other events, none of which are considered probable as of September 30, 2019.

Cash Flows

The following table sets forth summarized cash flow data for the periods indicated (in thousands):

	Nine Months Ended September 30,	
	2019	**2018**
Net cash provided by (used by):		
Operating activities	$ 88,938	$ 100,462
Investing activities	(813,046)	(39,777)
Financing activities	695,699	(53,301)

Cash Flows from Operating Activities

Net cash flows provided by operating activities during the nine months ended September 30, 2019, were $88.9 million as compared to $100.5 million during the same period in 2018. Net cash provided by operating activities primarily consists of net income (loss) adjusted to add back depreciation, amortization, and stock-based compensation. Cash flows provided by operating activities were $11.5 million lower for the nine months ended September 30, 2019, compared to the same period in 2018, due to the timing of working capital. Our current policy is to use our operating cash flow primarily for funding capital expenditures, lease payments, stock repurchases, and acquisitions.

Cash Flows from Investing Activities

During the first nine months of 2019, we paid $753.9 million, net of $0.1 million in cash acquired, to acquire Speedpay. We also used cash of $18.5 million to invest in a payment technology and services company in India. In addition, we used cash of $37.3 million to purchase software, property and equipment, as compared to $38.3 million during the same period in 2018.

Cash Flows from Financing Activities

Net cash flows provided by financing activities for the nine months ended September 30, 2019, were $695.7 million as compared to net cash flows used by financing activities of $53.3 million during the same period in 2018. During the first nine months of 2019, we received proceeds of $500.0 million from our Delayed Draw Term Loan and $280.0 million from our Revolving Credit Facility to fund our purchase of Speedpay and stock repurchases, and we repaid $19.2 million on the Initial Term Credit Loan and $15.0 million on the Revolving Credit Facility. In addition, we received proceeds of $9.3 million from the exercise of stock options and the issuance of common stock under our 2017 Employee Stock Purchase Plan, as amended, and used $2.8 million for the repurchase of restricted share awards (“RSAs”) and restricted share units (“RSUs”) for tax withholdings. We also used $35.6 million to repurchase common stock. During the first nine months of 2018, we received proceeds of $400.0 million from the issuance 5.750% Senior Notes due 2026. We used $300.0 million of the proceeds to redeem in full the Company's outstanding 6.375% Senior Notes due 2020 and repaid $105.3 million on the Initial Term Loan. In addition, we received proceeds of $20.7 million from the exercise of stock options and the issuance of common stock under our 2017 Employee Stock Purchase Plan, as amended, and used $2.6 million for the repurchase of RSAs for tax withholdings. We also used $54.5 million to repurchase common stock.

We may decide to use cash to acquire new products and services or enhance existing products and services through acquisitions of other companies, product lines, technologies, and personnel, or through investments in other companies.

We believe our existing sources of liquidity, including cash on hand and cash provided by operating activities, will satisfy our projected liquidity requirements, which primarily consists of working capital and debt service requirements, for the next twelve months and foreseeable future.

Debt

On April 5, 2019, we entered into the Second Amended and Restated Credit Agreement (the “Credit Agreement”) to amend and restate our existing agreement, dated February 24, 2017. The Credit Agreement consists of (a) a five-year $500.0 million senior secured revolving credit facility (the “Revolving Credit Facility”), (b) a five-year $279.0 million senior secured term loan facility (the “Initial Term Loan”), and (c) a five-year $500.0 million senior secured term loan facility (the “Delayed Draw Term Loan”, together with the Initial Term Loan, the "Term Loans", and together with the Initial Term Loan and the Revolving Credit Facility, the “Credit Facility”).

As of September 30, 2019, we had $265.0 million and $765.8 million outstanding under our Revolving Credit Facility and Term Loans, respectively, with up to $235.0 million of unused borrowings under the Revolving Credit Facility. The interest rate in effect for the Credit Facility as of September 30, 2019, was 4.29%. As of September 30, 2019, we also had $400.0 million outstanding of 5.750% Senior Notes due 2026 (the "2026 Notes"). Refer to Note 4, *Debt*, to our unaudited condensed consolidated financial statements in Part I of this Form 10-Q for additional information.

Stock Repurchase Program

In 2005, our board of directors ("the board") approved a stock repurchase program authorizing us, as market and business conditions warrant, to acquire our common stock and periodically authorize additional funds for the program. In February 2018, the board approved the repurchase of our common stock for up to $200.0 million, in place of the remaining purchase amounts previously authorized.

We repurchased 1,228,102 shares for $35.6 million under the program during the nine months ended September 30, 2019. Under the program to date, we have repurchased 45,357,495 shares for approximately $583.4 million. As of September 30, 2019, the maximum remaining amount authorized for purchase under the stock repurchase program was approximately $141.0 million.

There is no guarantee as to the exact number of shares we will repurchase. Repurchased shares are returned to the status of authorized but unissued shares of common stock. In March 2005, our board approved a plan under Rule 10b5-1 of the Securities Exchange Act of 1934 to facilitate the repurchase of shares of common stock under the existing stock repurchase program. Under our Rule 10b5-1 plan, we have delegated authority over the timing and amount of repurchases to an independent broker who does not have access to inside information about the Company. Rule 10b5-1 allows us, through the independent broker, to purchase shares at times when we ordinarily would not be in the market because of self-imposed trading blackout periods, such as the time immediately preceding the end of the fiscal quarter through a period of three business days following our quarterly earnings release.

Contractual Obligations and Commercial Commitments

For the nine months ended September 30, 2019, there have been no material changes to the contractual obligations and commercial commitments disclosed in Item 7 of our Form 10-K for the fiscal year ended December 31, 2018, except as disclosed below (in thousands).

	Payments Due by Period				
	Total	**Less than 1 Year**	**1-3 Years**	**3-5 Years**	**More than 5 Years**
Term loan	$ 765,798	$ 38,950	$ 84,513	$ 642,335	$ —
Term loan interest (1)	132,451	32,252	59,469	40,730	—
Revolving credit facility	265,000	—	—	265,000	—
Revolving credit facility interest (2)	51,133	11,363	22,726	17,044	—
Financed internal-use software (3)	13,822	5,973	7,849	—	—
Total	$ 1,228,204	$ 88,538	$ 174,557	$ 965,109	$ —

(1) Based on Term Loan debt outstanding and interest rate in effect at September 30, 2019, of 4.29%.
(2) Based on Revolving Credit Facility debt outstanding and interest rate in effect at September 30, 2019, of 4.29%.
(3) During the nine months ended September 30, 2019, the Company financed certain multi-year license agreements for internal-use software for $10.4 million with annual payments through April 2022. As of September 30, 2019, $13.8 million is outstanding under these and other agreements previously entered into, of which $6.0 million and $7.8 million is included in other current liabilities and other noncurrent liabilities, respectively, in the accompanying condensed consolidated balance sheet.

We are unable to reasonably estimate the ultimate amount or timing of settlement of our reserves for income taxes under Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 740, *Income Tax*. The liability for unrecognized tax benefits as of September 30, 2019, is $24.4 million.

Critical Accounting Estimates

The preparation of the condensed consolidated financial statements requires we make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. We base our estimates on historical experience and other assumptions we believe to be proper and reasonable under the circumstances. We continually evaluate the appropriateness of estimates and assumptions used in the preparation of our condensed consolidated financial statements. Actual results could differ from those estimates.

The accounting policies that reflect our more significant estimates, judgments, and assumptions, and that we believe are the most critical to aid in fully understanding and evaluating our reported financial results, include the following:

- Revenue Recognition
- Business Combinations
- Intangible Assets and Goodwill
- Stock-Based Compensation
- Accounting for Income Taxes

During the nine months ended September 30, 2019, there were no significant changes to our critical accounting policies and estimates. Please refer to Management's Discussion and Analysis of Financial Condition and Results of Operations contained in Part II, Item 7 of our Annual Report on Form 10-K for our fiscal year ended December 31, 2018, filed on March 1, 2019, for a more complete discussion of our critical accounting policies and estimates.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Excluding the impact of changes in interest rates and the uncertainty in the global financial markets, there have been no material changes to our market risk for the nine months ended September 30, 2019. We conduct business in all parts of the world and are thereby exposed to market risks related to fluctuations in foreign currency exchange rates. The U.S. dollar is the single largest currency in which our revenue contracts are denominated. Any decline in the value of local foreign currencies against the U.S. dollar results in our products and services being more expensive to a potential foreign customer. In those instances where our goods and services have already been sold, receivables may be more difficult to collect. Additionally, in jurisdictions where the revenue contracts are denominated in U.S. dollars and operating expenses are incurred in the local currency, any decline in the value of the U.S. dollar will have an unfavorable impact to operating margins. At times, we enter into revenue contracts that are denominated in the country's local currency, primarily in Australia, Canada, the United Kingdom, and other European countries. This practice serves as a natural hedge to finance the local currency expenses incurred in those locations. We have not entered into any foreign currency hedging transactions. We do not purchase or hold any derivative financial instruments for speculation or arbitrage.

The primary objective of our cash investment policy is to preserve principal without significantly increasing risk. If we maintained similar cash investments for a period of one year based on our cash investments and interest rates on these investments at September 30, 2019, a hypothetical ten percent increase or decrease in effective interest rates would increase or decrease interest income by less than $0.1 million annually.

We had approximately $1.4 billion of debt outstanding as of September 30, 2019, with $1.0 billion outstanding under our Credit Facility and $400.0 million in 2026 Senior Notes. Our Credit Facility has a floating interest rate, which was 4.29% as of September 30, 2019. Our 2026 Notes are fixed-rate long-term debt obligations with a 5.750% interest rate. A hypothetical ten percent increase or decrease in effective interest rates would increase or decrease interest expense related to the Credit Facility by approximately $4.4 million.

ITEM 4. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Management, under the supervision and with the participation of the Chief Executive Officer and Chief Financial Officer, performed an evaluation of the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) as of the end of the period covered by this report. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer have concluded our disclosure controls and procedures are effective as of September 30, 2019.

Changes in Internal Control over Financial Reporting

On May 9, 2019, we completed the acquisition of Speedpay. We consider the transaction material to our results of operations, cash flows, and financial position from the date of the acquisition through September 30, 2019, and believe the internal controls and procedures of Speedpay have a material effect on our internal control over financial reporting. See Note 3, *Acquisition*, to our unaudited condensed consolidated financial statements included in Part 1 of this Form 10-Q for discussion of the acquisition and related financial data.

We are currently in the process of integrating Speedpay operations, and we anticipate a successful integration of operations and internal controls over financial reporting. Management will continue to evaluate its internal control over financial reporting as it executes integration activities.

There were no additional changes in our internal control over financial reporting (as defined in Rules 13a-15(f) under the Exchange Act) during the quarter ended September 30, 2019, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

From time to time, we are involved in various litigation matters arising in the ordinary course of our business. We are not currently a party to any legal proceedings, the adverse outcome of which, individually or in the aggregate, we believe would be likely to have a material effect on our financial condition or results of operations.

ITEM 1A. RISK FACTORS

There have been no material changes to the risk factors disclosed in Item 1A of our Form 10-K for the fiscal year ended December 31, 2018, other than as disclosed below. Additional risks and uncertainties, including risks and uncertainties not presently known to us, or that we currently deem immaterial, could also have an adverse effect on our business, financial condition and/or results of operations.

We may experience difficulties integrating Speedpay, which could cause us to fail to realize the anticipated benefits of the acquisition.

Achieving the anticipated benefits of our acquisition of Speedpay will depend in part upon whether we are able to integrate the business in an effective and efficient manner. There can be no assurance that we will be able to fully integrate all aspects of Speedpay successfully, advance our business strategy, or fully realize the potential benefits of bringing the businesses together, and the process of integrating Speedpay may disrupt our business and divert our resources. Any delay or inability of management to successfully integrate the operations of Speedpay could compromise our potential to achieve the anticipated long-term strategic benefits of the acquisitions and could have a material adverse effect on the business, financial condition, cash flows, and results of operations.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Issuer Purchases of Equity Securities

The following table provides information regarding our repurchases of common stock during the three months ended September 30, 2019:

Period	Total Number of Shares Purchased		Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Program	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Program
July 1, 2019 through July 31, 2019	—		$ —	—	$ 175,956,000
August 1, 2019 through August 31, 2019	1,204,300		29.05	—	140,969,000
September 1, 2019 through September 30, 2019	399	(1)	32.51	—	140,969,000
Total	1,204,699		$ 29.05	—	

(1) Pursuant to our 2005 Incentive Plan, we granted RSAs and RSUs. Under each arrangement, shares are issued without direct cost to the employee. During the three months ended September 30, 2019, 3,499 shares of the RSAs and RSUs vested. We withheld 399 of those shares to pay the employees' portion of the applicable payroll taxes.

In 2005, our board approved a stock repurchase program authorizing us, as market and business conditions warrant, to acquire our common stock and periodically authorize additional funds for the program, with the intention of using existing cash and cash equivalents to fund these repurchases. In February 2018, the board approved the repurchase of the Company's common stock for up to $200.0 million, in place of the remaining purchase amounts previously authorized. As of September 30, 2019, the maximum remaining amount authorized for purchase under the stock repurchase program was approximately $141.0 million.

There is no guarantee as to the exact number of shares we will repurchase. Repurchased shares are returned to the status of authorized but unissued shares of common stock. In March 2005, our board approved a plan under Rule 10b5-1 of the Securities Exchange Act of 1934 to facilitate the repurchase of shares of common stock under the existing stock repurchase program. Under our Rule 10b5-1 plan, we have delegated authority over the timing and amount of repurchases to an independent broker who does not have access to inside information about the Company. Rule 10b5-1 allows us, through the independent broker, to purchase shares at times when we ordinarily would not be in the market because of self-imposed trading blackout periods, such as the time immediately preceding the end of the fiscal quarter through a period of three business days following our quarterly earnings release.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

Not applicable.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

Not applicable.

ITEM 6. EXHIBITS

The following lists exhibits filed as part of this quarterly report on Form 10-Q:

Exhibit No.		Description
2.01	(1)	Stock Purchase Agreement, dated February 28, 2019
3.01	(2)	2013 Amended and Restated Certificate of Incorporation of the Company
3.02	(3)	Amended and Restated Bylaws of the Company
4.01	(4)	Form of Common Stock Certificate (P)
10.01	(5)	Form of Restricted Share Unit Award Agreement CEO (RSUs)
10.02	(6)	Form of Performance Share Award Agreement CEO (rTSR Performance Share Awards)
10.03	(7)	Form of Restricted Share Unit Award Agreement (RSUs)
10.04	(8)	Form of Performance Share Award Agreement (rTSR Performance Share Awards)
10.05	(9)	Amendment Agreement to the Amended and Restated Credit Agreement, dated April 5, 2019
31.01		Certification of Principal Executive Officer pursuant to SEC Rule 13a-14, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.02		Certification of Principal Financial Officer pursuant to SEC Rule 13a-14, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.01	*	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.02	*	Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS		XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH		XBRL Taxonomy Extension Schema
101.CAL		XBRL Taxonomy Extension Calculation Linkbase
101.LAB		XBRL Taxonomy Extension Label Linkbase
101.PRE		XBRL Taxonomy Extension Presentation Linkbase
101.DEF		XBRL Taxonomy Extension Definition Linkbase
104		Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* This certification is not deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section. Such certification will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent that the Company specifically incorporates it by reference.

(P) Paper Exhibit
(1) Incorporated herein by reference to Exhibit 2.1 to the registrant's quarterly report on Form 10-Q for the period ended March 31, 2019.
(2) Incorporated herein by reference to Exhibit 3.1 to the registrant's current report on Form 8-K filed August 17, 2017.
(3) Incorporated herein by reference to Exhibit 3.1 to the registrant's current report on Form 8-K filed February 27, 2017.
(4) Incorporated herein by reference to Exhibit 4.01 to the registrant's Registration Statement No. 33-88292 on Form S-1.
(5) Incorporated herein by reference to Exhibit 10.1 to the registrant's current report on Form 8-K filed March 8, 2019.
(6) Incorporated herein by reference to Exhibit 10.2 to the registrant's current report on Form 8-K filed March 8, 2019.
(7) Incorporated herein by reference to Exhibit 10.3 to the registrant's current report on Form 8-K filed March 8, 2019.
(8) Incorporated herein by reference to Exhibit 10.4 to the registrant's current report on Form 8-K filed March 8, 2019.
(9) Incorporated herein by reference to Exhibit 10.1 to the registrant's current report on Form 8-K filed April 11, 2019.

SIGNATURE

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.

ACI WORLDWIDE, INC.
(Registrant)

Date: November 7, 2019

By: /s/ SCOTT W. BEHRENS

Scott W. Behrens
Senior Executive Vice President, Chief Financial Officer and Chief Accounting Officer
(Principal Financial Officer)

Exhibit 31.01

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER

I, Philip G. Heasley, certify that:

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

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

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

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

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

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

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

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

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

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

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

Date: November 7, 2019

/s/ PHILIP G. HEASLEY

Philip G. Heasley
President, Chief Executive Officer
and Director
(Principal Executive Officer)

Exhibit 31.02

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER

I, Scott W. Behrens, certify that:

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

Date: November 7, 2019

/s/ SCOTT W. BEHRENS

Scott W. Behrens
Senior Executive Vice President, Chief Financial Officer and Chief Accounting Officer
(Principal Financial Officer)

Exhibit 32.01

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

In connection with the quarterly report of ACI Worldwide, Inc. (the "Company") on Form 10-Q for the quarter ended September 30, 2019, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Philip G. Heasley, Principal Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1) The Report fully complies with the requirements of Sections 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 7, 2019

/s/ PHILIP G. HEASLEY

Philip G. Heasley
President, Chief Executive Officer
and Director
(Principal Executive Officer)

Exhibit 32.02

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

In connection with the quarterly report of ACI Worldwide, Inc. (the “Company”) on Form 10-Q for the quarter ended September 30, 2019, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Scott W. Behrens, Principal Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1) The Report fully complies with the requirements of Sections 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 7, 2019

/s/ SCOTT W. BEHRENS

Scott W. Behrens
Senior Executive Vice President, Chief Financial Officer and Chief Accounting Officer
(Principal Financial Officer)