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

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the quarterly period ended September 30, 2017

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 000-22418

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

Washington	**91-1011792**
(State of Incorporation)	**(I.R.S. Employer Identification Number)**

2111 N Molter Road, Liberty Lake, Washington 99019
(509) 924-9900
(Address and telephone number of registrant's principal executive offices)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

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

Large accelerated filer	☒		Accelerated filer	☐
Non-accelerated filer	☐	(Do not check if a smaller reporting company)	Smaller reporting company	☐
			Emerging growth company	☐

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

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

As of September 30, 2017, there were outstanding 38,725,212 shares of the registrant's common stock, no par value, which is the only class of common stock of the registrant.

Itron, Inc.

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PART I: FINANCIAL INFORMATION

Item 1: Financial Statements (Unaudited)

ITRON, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(UNAUDITED)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	**2016**	**2017**	**2016**
	(in thousands, except per share data)			
Revenues	$ 486,747	$ 506,859	$ 1,467,421	$ 1,517,473
Cost of revenues	321,429	336,110	967,018	1,013,816
Gross profit	165,318	170,749	500,403	503,657
Operating expenses				
Sales and marketing	40,780	38,894	127,001	119,037
Product development	42,560	39,386	126,539	128,086
General and administrative	39,667	40,384	120,074	130,781
Amortization of intangible assets	5,625	4,996	15,144	19,002
Restructuring	(678)	40,679	7,417	41,294
Total operating expenses	127,954	164,339	396,175	438,200
Operating income	37,364	6,410	104,228	65,457
Other income (expense)				
Interest income	729	102	1,468	594
Interest expense	(2,898)	(2,691)	(8,448)	(8,344)
Other income (expense), net	(1,701)	707	(7,126)	(1,074)
Total other income (expense)	(3,870)	(1,882)	(14,106)	(8,824)
Income before income taxes	33,494	4,528	90,122	56,633
Income tax provision	(6,640)	(13,430)	(32,247)	(34,249)
Net income (loss)	26,854	(8,902)	57,875	22,384
Net income attributable to noncontrolling interests	1,278	983	2,357	2,263
Net income (loss) attributable to Itron, Inc.	$ 25,576	$ (9,885)	$ 55,518	$ 20,121
Earnings (loss) per common share - Basic	$ 0.66	$ (0.26)	$ 1.44	$ 0.53
Earnings (loss) per common share - Diluted	$ 0.65	$ (0.26)	$ 1.41	$ 0.52
Weighted average common shares outstanding - Basic	38,713	38,248	38,624	38,181
Weighted average common shares outstanding - Diluted	39,467	38,248	39,339	38,515

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

ITRON, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(UNAUDITED)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(in thousands)			
Net income (loss)	$ 26,854	$ (8,902)	$ 57,875	$ 22,384
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustment	14,930	9,184	50,393	10,910
Net unrealized gain (loss) on derivative instruments, designated as cash flow hedges	126	542	187	(3,190)
Pension benefit obligation adjustment	410	(1,198)	1,004	(1,807)
Total other comprehensive income (loss), net of tax	15,466	8,528	51,584	5,913
Total comprehensive income (loss), net of tax	42,320	(374)	109,459	28,297
Comprehensive income attributable to noncontrolling interests, net of tax	1,278	983	2,357	2,263
Comprehensive income (loss) attributable to Itron, Inc.	$ 41,042	$ (1,357)	$ 107,102	$ 26,034

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

ITRON, INC.
CONSOLIDATED BALANCE SHEETS
(UNAUDITED)

	September 30, 2017	December 31, 2016
	(in thousands)	
ASSETS		
Current assets		
Cash and cash equivalents	$ 137,584	$ 133,565
Accounts receivable, net	376,149	351,506
Inventories	207,703	163,049
Other current assets	112,959	84,346
Total current assets	834,395	732,466
Property, plant, and equipment, net	192,784	176,458
Deferred tax assets, net	95,666	94,113
Other long-term assets	44,072	50,129
Intangible assets, net	100,289	72,151
Goodwill	550,732	452,494
Total assets	$ 1,817,938	$ 1,577,811
LIABILITIES AND EQUITY		
Current liabilities		
Accounts payable	$ 212,564	$ 172,711
Other current liabilities	55,305	43,625
Wages and benefits payable	94,867	82,346
Taxes payable	21,082	10,451
Current portion of debt	18,281	14,063
Current portion of warranty	21,697	24,874
Unearned revenue	74,598	64,976
Total current liabilities	498,394	413,046
Long-term debt	303,949	290,460
Long-term warranty	13,225	18,428
Pension benefit obligation	96,849	84,498
Deferred tax liabilities, net	3,447	3,073
Other long-term obligations	111,553	117,953
Total liabilities	1,027,417	927,458
Commitments and contingencies (Note 11)		
Equity		
Preferred stock, no par value, 10 million shares authorized, no shares issued or outstanding	—	—
Common stock, no par value, 75 million shares authorized, 38,725 and 38,317 shares issued and outstanding	1,287,803	1,270,467
Accumulated other comprehensive loss, net	(177,743)	(229,327)
Accumulated deficit	(339,654)	(409,536)
Total Itron, Inc. shareholders' equity	770,406	631,604
Noncontrolling interests	20,115	18,749
Total equity	790,521	650,353
Total liabilities and equity	$ 1,817,938	$ 1,577,811

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

ITRON, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(UNAUDITED)

	Nine Months Ended September 30,	
	2017	2016
	(in thousands)	
Operating activities		
Net income	$ 57,875	$ 22,384
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	46,000	51,563
Stock-based compensation	15,254	13,300
Amortization of prepaid debt fees	800	806
Deferred taxes, net	7,615	17,772
Restructuring, non-cash	(720)	5,153
Other adjustments, net	3,111	(734)
Changes in operating assets and liabilities:		
Accounts receivable	2,537	(32,652)
Inventories	(30,843)	3,207
Other current assets	(23,492)	(15,591)
Other long-term assets	10,460	8,499
Accounts payable, other current liabilities, and taxes payable	34,987	(5,830)
Wages and benefits payable	6,218	11,516
Unearned revenue	(5,679)	(8,684)
Warranty	(10,285)	(9,900)
Other operating, net	663	21,072
Net cash provided by operating activities	114,501	81,881
Investing activities		
Acquisitions of property, plant, and equipment	(33,493)	(30,563)
Business acquisitions, net of cash and cash equivalents acquired	(98,848)	(951)
Other investing, net	10	(1,258)
Net cash used in investing activities	(132,331)	(32,772)
Financing activities		
Proceeds from borrowings	35,000	—
Payments on debt	(24,844)	(29,031)
Issuance of common stock	2,797	1,993
Other financing, net	1,216	(3,658)
Net cash provided by (used in) financing activities	14,169	(30,696)
Effect of foreign exchange rate changes on cash and cash equivalents	7,680	1,949
Increase in cash and cash equivalents	4,019	20,362
Cash and cash equivalents at beginning of period	133,565	131,018
Cash and cash equivalents at end of period	$ 137,584	$ 151,380
Supplemental disclosure of cash flow information:		
Cash paid during the period for:		
Income taxes, net	$ 25,423	$ 17,207
Interest, net of amounts capitalized	7,629	7,592

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

ITRON, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
September 30, 2017
(UNAUDITED)

In this Quarterly Report on Form 10-Q, the terms "we," "us," "our," "Itron," and the "Company" refer to Itron, Inc.

Note 1: Summary of Significant Accounting Policies

Financial Statement Preparation
The condensed consolidated financial statements presented in this Quarterly Report on Form 10-Q are unaudited and reflect entries necessary for the fair presentation of the Consolidated Statements of Operations and the Consolidated Statements of Comprehensive Income (Loss) for the three and nine months ended September 30, 2017 and 2016, the Consolidated Balance Sheets as of September 30, 2017 and December 31, 2016, and the Consolidated Statements of Cash Flows for the nine months ended September 30, 2017 and 2016 of Itron, Inc. and its subsidiaries. All entries required for the fair presentation of the financial statements are of a normal recurring nature, except as disclosed. The results of operations for the three and nine months ended September 30, 2017 are not necessarily indicative of the results expected for the full year or for any other period.

Certain information and notes normally included in financial statements prepared in accordance with U.S. generally accepted accounting principles (GAAP) have been condensed or omitted pursuant to the rules and regulations of the Securities and Exchange Commission (SEC) regarding interim results. These condensed consolidated financial statements should be read in conjunction with the audited financial statements and notes included in our 2016 Annual Report on Form 10-K filed with the SEC on March 1, 2017. There have been no significant changes in financial statement preparation or significant accounting policies since December 31, 2016 with the exception of the adoption of Accounting Standards Update (ASU) 2016-09 as discussed below.

New Accounting Pronouncements
In May 2014, the Financial Accounting Standards Board (FASB) issued ASU 2014-09, *Revenue from Contracts with Customers: Topic 606* (ASU 2014-09), to supersede nearly all existing revenue recognition guidance under U.S. GAAP. The core principle of ASU 2014-09 is to recognize revenues when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for those goods or services. In August 2015, the FASB issued ASU 2015-14, *Revenue from Contracts with Customers: Deferral of the Effective Date*, which deferred the effective date for implementation of ASU 2014-09 by one year and is now effective for annual reporting periods beginning after December 15, 2017, with early adoption permitted but not earlier than the original effective date. In March 2016, the FASB issued ASU 2016-08, *Principal versus Agent Considerations (Reporting Revenue Gross versus Net)* (ASU 2016-08), which clarifies the implementation guidance of principal versus agent considerations. In April 2016, the FASB issued ASU 2016-10, *Identifying Performance Obligations and Licensing* (ASU 2016-10), which clarifies the identification of performance obligations and licensing implementation guidance. In May 2016, the FASB issued ASU 2016-12, *Narrow-Scope Improvements and Practical Expedients* (ASU 2016-12), to improve guidance on assessing collectability, presentation of sales taxes, noncash consideration, and completed contracts and contract modifications at transition. The effective date and transition requirements in ASU 2016-08, ASU 2016-10, and ASU 2016-12 are the same as the effective date and transition requirements of ASU 2015-14.

The revenue guidance permits two methods of adoption: retrospectively to each prior reporting period presented (full retrospective method), or retrospectively with the cumulative effect of initially applying the guidance recognized at the date of initial application (the cumulative catch-up transition method). We currently anticipate adopting the standard effective January 1, 2018 using the cumulative catch-up transition method, therefore, will recognize the cumulative effect of initially applying the revenue standard as an adjustment to the opening balance of retained earnings in the period of initial application. We currently believe the most significant impact relates to our accounting for software and software-related elements, and the increased financial statement disclosures, but are continuing to evaluate the effect that the updated standard will have on our consolidated results of operations, financial position, cash flows, and related financial statement disclosures.

In July 2015, the FASB issued ASU 2015-11, *Inventory (Topic 330) - Simplifying the Measurement of Inventory* (ASU 2015-11). The amendments in ASU 2015-11 apply to inventory measured using first-in, first-out (FIFO) or average cost and will require entities to measure inventory at the lower of cost and net realizable value. Net realizable value is the estimated selling price in the normal course of business, minus the cost of completion, disposal and transportation. Replacement cost and net realizable value less a normal profit margin will no longer be considered. We adopted this standard on January 1, 2017 and it did not materially impact our consolidated results of operations, financial position, cash flows, and related financial statement disclosures.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842),* which requires substantially all leases be recognized by lessees on their balance sheet as a right-of-use asset and corresponding lease liability, including leases currently accounted for as operating leases. The new standard also will result in enhanced quantitative and qualitative disclosures, including significant judgments made by management, to provide greater insight into the extent of revenue and expense recognized and expected to be recognized from existing leases. The standard requires modified retrospective adoption and will be effective for annual reporting periods beginning after December 15, 2018, with early adoption permitted. We are currently assessing the impact of adoption on our consolidated results of operations, financial position, cash flows, and related financial statement disclosures.

In March 2016, the FASB issued ASU 2016-09, *Improvements to Employee Share-Based Payment Accounting (Topic 718)* (ASU 2016-09), which simplifies several areas within Topic 718. These include income tax consequences, classification of awards as either equity or liabilities, forfeitures, and classification on the statement of cash flows. The amendments in this ASU becomes effective on a modified retrospective basis for accounting for income tax benefits recognized and forfeitures, retrospectively for accounting related to the presentation of employee taxes paid, prospectively for accounting related to recognition of excess tax benefits, and either prospectively or retrospectively for accounting related to presentation of excess employee tax benefits for annual periods, and interim periods within those annual periods, beginning after December 15, 2016.

We adopted this standard effective January 1, 2017 using a modified retrospective transition method. We recognized a $14.6 million one-time reduction in accumulated deficit and increase in deferred tax assets related to cumulative unrecognized excess tax benefits. All future excess tax benefits and tax deficiencies will be recognized prospectively as income tax provision or benefit in the Consolidated Statement of Operations, and as an operating activity on the Consolidated Statement of Cash Flows. We also recognized a $0.2 million one-time increase in accumulated deficit and common stock related to our policy election to prospectively recognize forfeitures as they occur.

In January 2017, the FASB issued ASU 2017-01, *Clarifying the Definition of a Business* (ASU 2017-01), which narrows the definition of a business and provides a framework that gives entities a basis for making reasonable judgments about whether a transaction involves an asset or a business. ASU 2017-01 states that when substantially all of the fair value of the gross assets acquired (or disposed of) is concentrated in a single identifiable asset or group of similar identifiable assets, the set is not a business. If this initial test is not met, a set cannot be considered a business unless it includes an input and a substantive process that together significantly contribute to the ability to create output. ASU 2017-01 is effective for fiscal years beginning after December 15, 2019 with early adoption permitted. We adopted this standard on January 1, 2017, and it did not materially impact our consolidated results of operations, financial position, cash flows, and related financial statement disclosures.

In January 2017, the FASB issued ASU 2017-04, *Simplifying the Test for Goodwill Impairment* (ASU 2017-04), which simplifies the measurement of goodwill impairment by removing step two of the goodwill impairment test that requires the determination of the fair value of individual assets and liabilities of a reporting unit. ASU 2017-04 requires goodwill impairment to be measured as the amount by which a reporting unit's carrying value exceeds its fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. ASU 2017-04 is effective for fiscal years beginning after December 15, 2019 with early adoption permitted for interim or annual goodwill impairment tests performed after January 1, 2017. We adopted this standard on January 1, 2017, and it did not materially impact our consolidated results of operations, financial position, cash flows, and related financial statement disclosures.

In March 2017, the FASB issued ASU 2017-07, *Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost* (ASU 2017-07), which provides additional guidance on the presentation of net benefit costs in the income statement. ASU 2017-07 requires an employer disaggregate the service cost component from the other components of net benefit cost and to disclose other components outside of a subtotal of income from operations. It also allows only the service cost component of net benefit costs to be eligible for capitalization. ASU 2017-07 is effective for fiscal years beginning after December 15, 2017 with early adoption permitted. We are currently assessing the impact of adoption on our consolidated results of operations, financial position, cash flows, and related financial statement disclosures.

Note 2: Earnings (Loss) Per Share

The following table sets forth the computation of basic and diluted earnings (loss) per share (EPS):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(in thousands, except per share data)			
Net income (loss) available to common shareholders	$ 25,576	$ (9,885)	$ 55,518	$ 20,121
Weighted average common shares outstanding - Basic	38,713	38,248	38,624	38,181
Dilutive effect of stock-based awards	754	—	715	334
Weighted average common shares outstanding - Diluted	39,467	38,248	39,339	38,515
Earnings (loss) per common share - Basic	$ 0.66	$ (0.26)	$ 1.44	$ 0.53
Earnings (loss) per common share - Diluted	$ 0.65	$ (0.26)	$ 1.41	$ 0.52

Stock-based Awards

For stock-based awards, the dilutive effect is calculated using the treasury stock method. Under this method, the dilutive effect is computed as if the awards were exercised at the beginning of the period (or at time of issuance, if later) and assumes the related proceeds were used to repurchase common stock at the average market price during the period. Related proceeds include the amount the employee must pay upon exercise and the future compensation cost associated with the stock award. Approximately 0.2 million stock-based awards were excluded from the calculation of diluted EPS for both the three and nine months ended September 30, 2017 because they were anti-dilutive. Approximately 0.9 million and 0.8 million stock-based awards were excluded from the calculation of diluted EPS for the three and nine months ended September 30, 2016 because they were anti-dilutive. These stock-based awards could be dilutive in future periods.

Note 3: Certain Balance Sheet Components

Accounts receivable, net	September 30, 2017	December 31, 2016
	(in thousands)	
Trade receivables (net of allowance of $3,991 and $3,320)	$ 351,255	$ 299,870
Unbilled receivables	24,894	51,636
Total accounts receivable, net	$ 376,149	$ 351,506

Allowance for doubtful accounts activity	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(in thousands)			
Beginning balance	$ 3,502	$ 3,939	$ 3,320	$ 5,949
Provision for doubtful accounts, net	769	353	1,513	265
Accounts written-off	(310)	(77)	(1,115)	(1,919)
Effect of change in exchange rates	30	39	273	(41)
Ending balance	$ 3,991	$ 4,254	$ 3,991	$ 4,254

Inventories	September 30, 2017	December 31, 2016
	(in thousands)	
Materials	$ 131,616	$ 103,274
Work in process	9,158	7,925
Finished goods	66,929	51,850
Total inventories	$ 207,703	$ 163,049

Property, plant, and equipment, net	September 30, 2017	December 31, 2016
	(in thousands)	
Machinery and equipment	$ 292,330	$ 279,746
Computers and software	106,287	98,125
Buildings, furniture, and improvements	134,536	122,680
Land	18,596	17,179
Construction in progress, including purchased equipment	37,846	29,358
Total cost	589,595	547,088
Accumulated depreciation	(396,811)	(370,630)
Property, plant, and equipment, net	$ 192,784	$ 176,458

Depreciation expense	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(in thousands)			
Depreciation expense	$ 10,907	$ 11,086	$ 30,856	$ 32,561

Note 4: Intangible Assets

The gross carrying amount and accumulated amortization of our intangible assets, other than goodwill, were as follows:

	September 30, 2017			December 31, 2016		
	Gross Assets	Accumulated Amortization	Net	Gross Assets	Accumulated Amortization	Net
	(in thousands)					
Core-developed technology	$ 425,198	$ (393,831)	$ 31,367	$ 372,568	$ (354,878)	$ 17,690
Customer contracts and relationships	256,840	(193,317)	63,523	224,467	(170,056)	54,411
Trademarks and trade names	69,706	(65,537)	4,169	61,785	(61,766)	19
Other	11,582	(11,062)	520	11,076	(11,045)	31
Total intangible assets subject to amortization	$ 763,326	$ (663,747)	$ 99,579	$ 669,896	$ (597,745)	$ 72,151
In-process research and development	710	—	710	—	—	—
Total intangible assets	$ 764,036	$ (663,747)	$ 100,289	$ 669,896	$ (597,745)	$ 72,151

A summary of intangible asset activity is as follows:

	Nine Months Ended September 30,	
	2017	2016
	(in thousands)	
Beginning balance, intangible assets, gross	$ 669,896	$ 702,507
Intangible assets acquired	36,500	—
Effect of change in exchange rates	57,640	2,309
Ending balance, intangible assets, gross	$ 764,036	$ 704,816

On June 1, 2017, we completed the acquisition of Comverge Inc. by purchasing 100% of the voting stock of Peak Holding Corp., its parent company (Comverge). Intangible assets acquired in 2017 are based on the preliminary purchase price allocation relating to this acquisition. Comverge's intangible assets include in-process research and development, which is not amortized until such time as the associated development projects are completed. These projects are expected to be completed in the next three months. Refer to Note 16 for additional information regarding this acquisition.

Estimated future annual amortization expense is as follows:

Year Ending December 31,		Estimated Annual Amortization
		(in thousands)
2017 (amount remaining at September 30, 2017)	$	5,605
2018		19,065
2019		16,302
2020		14,003
2021		11,995
Beyond 2021		32,609
Total intangible assets subject to amortization	$	99,579

Note 5: Goodwill

The following table reflects goodwill allocated to each reporting unit:

		Electricity		Gas		Water		Total Company
				(in thousands)				
Balances at January 1, 2017								
Goodwill before impairment	$	400,299	$	319,913	$	334,505	$	1,054,717
Accumulated impairment losses		(348,926)		—		(253,297)		(602,223)
Goodwill, net		51,373		319,913		81,208		452,494
Goodwill acquired		59,137		—		—		59,137
Effect of change in exchange rates		2,900		29,390		6,811		39,101
Balances at September 30, 2017								
Goodwill before impairment		495,848		349,303		374,151		1,219,302
Accumulated impairment losses		(382,438)		—		(286,132)		(668,570)
Goodwill, net	$	113,410	$	349,303	$	88,019	$	550,732

Note 6: Debt

The components of our borrowings were as follows:

		September 30, 2017		December 31, 2016
		(in thousands)		
Credit facility:				
USD denominated term loan	$	198,281	$	208,125
Multicurrency revolving line of credit		124,523		97,167
Total debt		322,804		305,292
Less: current portion of debt		18,281		14,063
Less: unamortized prepaid debt fees - term loan		574		769
Long-term debt less unamortized prepaid debt fees - term loan	$	303,949	$	290,460

Credit Facility

On June 23, 2015, we entered into an amended and restated credit agreement providing for committed credit facilities in the amount of $725 million U.S. dollars (the 2015 credit facility). The 2015 credit facility consists of a $225 million U.S. dollar term loan (the term loan) and a multicurrency revolving line of credit (the revolver) with a principal amount of up to $500 million. The revolver also contains a $250 million standby letter of credit sub-facility and a $50 million swingline sub-facility (available for immediate cash needs at a higher interest rate). Both the term loan and the revolver mature on June 23, 2020, and amounts borrowed under the revolver are classified as long-term and, during the credit facility term, may be repaid and reborrowed until the revolver's maturity, at which time the revolver will terminate, and all outstanding loans, together with all accrued and unpaid interest, must be repaid. Amounts not borrowed under the revolver are subject to a commitment fee, which is paid in arrears on the last day of each fiscal quarter, ranging from 0.18% to 0.30% per annum depending on our total leverage ratio as of the most recently ended fiscal quarter. Amounts repaid on the term loan may not be reborrowed. The 2015 credit facility permits us and certain of our foreign subsidiaries to borrow in U.S. dollars, euros, British pounds, or, with lender approval, other currencies readily convertible into U.S. dollars. All obligations under the 2015 credit facility are guaranteed by Itron, Inc. and material U.S. domestic subsidiaries and are secured by a pledge of substantially all of the assets of Itron, Inc. and material U.S. domestic subsidiaries, including a pledge of 100% of the capital stock of material U.S. domestic subsidiaries and up to 66% of the voting stock (100% of the non-voting stock) of their first-tier foreign subsidiaries. In addition, the obligations of any foreign subsidiary who is a foreign borrower, as defined by the 2015 credit facility, are guaranteed by the foreign subsidiary and by its direct and indirect foreign parents.

Under the 2015 credit facility, we elect applicable market interest rates for both the term loan and any outstanding revolving loans. We also pay an applicable margin, which is based on our total leverage ratio (as defined in the credit agreement). The applicable rates per annum may be based on either: (1) the LIBOR rate or EURIBOR rate (floor of 0%), plus an applicable margin, or (2) the Alternate Base Rate, plus an applicable margin. The Alternate Base Rate election is equal to the greatest of three rates: (i) the prime rate, (ii) the Federal Reserve effective rate plus 1/2 of 1%, or (iii) one month LIBOR plus 1%. At September 30, 2017 and December 31, 2016, the interest rate for both the term loan and the USD revolver was 2.49% and 2.02%, respectively, which includes the LIBOR rate plus a margin of 1.25%. At September 30, 2017 and December 31, 2016, the interest rate for the EUR revolver was 1.25% (the EURIBOR floor rate plus a margin of 1.25%).

At September 30, 2017, $124.5 million was outstanding under the 2015 credit facility revolver, and $29.1 million was utilized by outstanding standby letters of credit, resulting in $346.4 million available for additional borrowings or standby letters of credit. At September 30, 2017, $220.9 million was available for additional standby letters of credit under the letter of credit sub-facility and no amounts were outstanding under the swingline sub-facility.

Note 7: Derivative Financial Instruments

As part of our risk management strategy, we use derivative instruments to hedge certain foreign currency and interest rate exposures. Refer to Note 13 and Note 14 for additional disclosures on our derivative instruments.

The fair values of our derivative instruments are determined using the income approach and significant other observable inputs (also known as “Level 2”). We have used observable market inputs based on the type of derivative and the nature of the underlying instrument. The key inputs include interest rate yield curves (swap rates and futures) and foreign exchange spot and forward rates, all of which are available in an active market. We have utilized the mid-market pricing convention for these inputs. We include, as a discount to the derivative asset, the effect of our counterparty credit risk based on current published credit default swap rates when the net fair value of our derivative instruments is in a net asset position. We consider our own nonperformance risk when the net fair value of our derivative instruments is in a net liability position by discounting our derivative liabilities to reflect the potential credit risk to our counterparty through applying a current market indicative credit spread to all cash flows.

The fair values of our derivative instruments were as follows:

		Fair Value	
Asset Derivatives	**Balance Sheet Location**	**September 30, 2017**	**December 31, 2016**
Derivatives designated as hedging instruments under ASC 815-20		**(in thousands)**	
Interest rate swap contracts	Other current assets	$ 68	$ —
Interest rate cap contracts	Other current assets	7	3
Interest rate swap contracts	Other long-term assets	1,209	1,830
Interest rate cap contracts	Other long-term assets	147	376
Derivatives not designated as hedging instruments under ASC 815-20			
Foreign exchange forward contracts	Other current assets	96	169
Interest rate cap contracts	Other current assets	10	4
Interest rate cap contracts	Other long-term assets	220	563
Total asset derivatives		$ 1,757	$ 2,945
Liability Derivatives			
Derivatives designated as hedging instruments under ASC 815-20			
Interest rate swap contracts	Other current liabilities	$ —	$ 934
Derivatives not designated as hedging instruments under ASC 815-20			
Foreign exchange forward contracts	Other current liabilities	554	449
Total liability derivatives		$ 554	$ 1,383

The changes in accumulated other comprehensive income (loss) (AOCI), net of tax, for our derivative and nonderivative hedging instruments, were as follows:

	2017	2016
	(in thousands)	
Net unrealized loss on hedging instruments at January 1,	$ (14,337)	$ (14,062)
Unrealized loss on hedging instruments	(295)	(3,709)
Realized losses reclassified into net income	482	519
Net unrealized loss on hedging instruments at September 30,	$ (14,150)	$ (17,252)

Reclassification of amounts related to hedging instruments are included in interest expense in the Consolidated Statements of Operations for the periods ended September 30, 2017 and 2016. Included in the net unrealized loss on hedging instruments at September 30, 2017 and 2016 is a loss of $14.4 million, net of tax, related to our nonderivative net investment hedge, which terminated in 2011. This loss on our net investment hedge will remain in AOCI until such time when earnings are impacted by a sale or liquidation of the associated foreign operation.

A summary of the effect of netting arrangements on our financial position related to the offsetting of our recognized derivative assets and liabilities under master netting arrangements or similar agreements is as follows:

Offsetting of Derivative Assets	Gross Amounts of Recognized Assets Presented in the Consolidated Balance Sheets	Gross Amounts Not Offset in the Consolidated Balance Sheets		Net Amount
		Derivative Financial Instruments	Cash Collateral Received	
		(in thousands)		
September 30, 2017	$ 1,757	$ (223)	$ —	$ 1,534
December 31, 2016	$ 2,945	$ (1,322)	$ —	$ 1,623

Offsetting of Derivative Liabilities	Gross Amounts of Recognized Liabilities Presented in the Consolidated Balance Sheets	Gross Amounts Not Offset in the Consolidated Balance Sheets		Net Amount
		Derivative Financial Instruments	Cash Collateral Pledged	
		(in thousands)		
September 30, 2017	$ 554	$ (223)	$ —	$ 331
December 31, 2016	$ 1,383	$ (1,322)	$ —	$ 61

Our derivative assets and liabilities subject to netting arrangements consist of foreign exchange forward and interest rate contracts with three counterparties at September 30, 2017 and December 31, 2016. No derivative asset or liability balance with any of our counterparties was individually significant at September 30, 2017 or December 31, 2016. Our derivative contracts with each of these counterparties exist under agreements that provide for the net settlement of all contracts through a single payment in a single currency in the event of default. We have no pledges of cash collateral against our obligations nor have we received pledges of cash collateral from our counterparties under the associated derivative contracts.

Cash Flow Hedges

As a result of our floating rate debt, we are exposed to variability in our cash flows from changes in the applicable interest rate index. We enter into swaps to achieve a fixed rate of interest on a portion of our debt in order to increase our ability to forecast interest expense. The objective of these swaps is to reduce the variability of cash flows from increases in the LIBOR based borrowing rates on our floating rate credit facility. The swaps do not protect us from changes to the applicable margin under our credit facility.

In May 2012, we entered into six interest rate swaps, which were effective July 31, 2013 and expired on August 8, 2016, to convert $200 million of our LIBOR based debt from a floating LIBOR interest rate to a fixed interest rate of 1.00% (excluding the applicable margin on the debt). The cash flow hedges were expected to be highly effective in achieving offsetting cash flows attributable to the hedged risk through the term of the hedge. Consequently, effective changes in the fair value of the interest rate swaps were recognized as a component of other comprehensive income (loss) (OCI) and recognized in earnings when the hedged item affected earnings. The amounts paid on the hedges were recognized as adjustments to interest expense.

In October 2015, we entered into an interest rate swap, which is effective from August 31, 2016 to June 23, 2020, and converts $214 million of our LIBOR based debt from a floating LIBOR interest rate to a fixed interest rate of 1.42% (excluding the applicable margin on the debt). The notional balance will amortize to maturity at the same rate as required minimum payments on our term loan. The cash flow hedge is expected to be highly effective in achieving offsetting cash flows attributable to the hedged risk through the term of the hedge. Consequently, effective changes in the fair value of the interest rate swap are recognized as a component of OCI and will be recognized in earnings when the hedged item affects earnings. The amounts paid or received on the hedge will be recognized as an adjustment to interest expense. The amount of net gains expected to be reclassified into earnings in the next 12 months is $0.1 million. At September 30, 2017, our LIBOR-based debt balance was $258.3 million.

In November 2015, we entered into three interest rate cap contracts with a total notional amount of $100 million at a cost of $1.7 million. The interest rate cap contracts expire on June 23, 2020 and were entered into in order to limit our interest rate exposure on $100 million of our variable LIBOR based debt up to 2.00%. In the event LIBOR is higher than 2.00%, we will pay interest at the capped rate of 2.00% with respect to the $100 million notional amount of such agreements. The interest rate cap contracts do not include the effect of the applicable margin. As of December 31, 2016, due to the accelerated revolver payments from surplus cash, we elected to de-designate two of the interest rate cap contracts as cash flow hedges and discontinued the use of cash flow hedge accounting. The amounts recognized in AOCI from de-designated interest rate cap contracts will continue to be reported in AOCI unless it is not probable that the forecasted transactions will occur. As a result of the discontinuance of cash flow hedge accounting, all subsequent changes in fair value of the de-designated derivative instruments are recognized within interest expense instead of OCI. The amount of net losses expected to be reclassified into earnings for all interest rate cap contracts in the next 12 months is $0.3 million.

The before-tax effects of our derivative instruments designated as hedges on the Consolidated Balance Sheets and the Consolidated Statements of Operations were as follows:

Derivatives in ASC 815-20 Cash Flow Hedging Relationships	Amount of Gain (Loss) Recognized in OCI on Derivative (Effective Portion)		Gain (Loss) Reclassified from Accumulated OCI into Income (Effective Portion)			Gain (Loss) Recognized in Income on Derivative (Ineffective Portion)		
			Location	Amount		Location	Amount	
	2017	2016		2017	2016		2017	2016
	(in thousands)			(in thousands)			(in thousands)	
Three Months Ended September 30,								
Interest rate swap contracts	$ 81	$ 641	Interest expense	$ (92)	$ (273)	Interest expense	$ —	$ —
Interest rate cap contracts	(24)	(31)	Interest expense	(55)	(6)	Interest expense	—	(1)
Nine Months Ended September 30,								
Interest rate swap contracts	$ (255)	$ (4,910)	Interest expense	$ (637)	$ (839)	Interest expense	$ —	$ —
Interest rate cap contracts	(225)	(1,121)	Interest expense	(148)	(6)	Interest expense	—	(1)

Derivatives Not Designated as Hedging Relationships

We are also exposed to foreign exchange risk when we enter into non-functional currency transactions, both intercompany and third party. At each period-end, non-functional currency monetary assets and liabilities are revalued with the change recognized to other income and expense. We enter into monthly foreign exchange forward contracts, which are not designated for hedge accounting, with the intent to reduce earnings volatility associated with currency exposures. As of September 30, 2017, a total of 54 contracts were offsetting our exposures from the euro, Saudi Riyal, Indian Rupee, Chinese Yuan, Indonesian Rupiah, and various other currencies, with notional amounts ranging from $0.1 million to $50.6 million.

The effect of our derivative instruments not designated as hedges on the Consolidated Statements of Operations was as follows:

Derivatives Not Designated as Hedging Instrument under ASC 815-20	Location	Gain (Loss) Recognized on Derivatives in Other Income (Expense)	
		2017	2016
Three Months Ended September 30,		(in thousands)	
Foreign exchange forward contracts	Other income (expense), net	$ (1,760)	$ (559)
Interest rate cap contracts	Interest expense	(36)	—
Nine Months Ended September 30,			
Foreign exchange forward contracts	Other income (expense), net	$ (5,565)	$ (558)
Interest rate cap contracts	Interest expense	(337)	—

Note 8: Defined Benefit Pension Plans

We sponsor both funded and unfunded defined benefit pension plans offering death and disability, retirement, and special termination benefits for our international employees, primarily in Germany, France, Italy, Indonesia, Brazil, and Spain. The defined benefit obligation is calculated annually by using the projected unit credit method. The measurement date for the pension plans was December 31, 2016.

Amounts recognized on the Consolidated Balance Sheets consist of:

	September 30, 2017	December 31, 2016
	(in thousands)	
Assets		
Plan assets in other long-term assets	$ 740	$ 654
Liabilities		
Current portion of pension benefit obligation in wages and benefits payable	3,497	3,202
Long-term portion of pension benefit obligation	96,849	84,498
Pension benefit obligation, net	$ 99,606	$ 87,046

Our asset investment strategy focuses on maintaining a portfolio using primarily insurance funds, which are accounted for as investments and measured at fair value, in order to achieve our long-term investment objectives on a risk adjusted basis. Our general funding policy for these qualified pension plans is to contribute amounts sufficient to satisfy regulatory funding standards of the respective countries for each plan.

Net periodic pension benefit costs for our plans include the following components:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(in thousands)			
Service cost	$ 994	$ 1,003	$ 2,846	$ 2,930
Interest cost	568	649	1,628	1,932
Expected return on plan assets	(152)	(139)	(445)	(398)
Settlements and other	—	506	—	499
Amortization of actuarial net loss	431	330	1,225	991
Amortization of unrecognized prior service costs	16	16	46	47
Net periodic benefit cost	$ 1,857	$ 2,365	$ 5,300	$ 6,001

Note 9: Stock-Based Compensation

We maintain the Second Amended and Restated 2010 Stock Incentive Plan (Stock Incentive Plan), which allows us to grant stock-based compensation awards, including stock options, restricted stock units, phantom stock, and unrestricted stock units. Under the Stock Incentive Plan, we have 10,473,956 shares of common stock reserved and authorized for issuance subject to stock splits, dividends, and other similar events. At September 30, 2017, 4,641,890 shares were available for grant under the Stock Incentive Plan. We issue new shares of common stock upon the exercise of stock options or when vesting conditions on restricted stock units are fully satisfied. These shares are subject to a fungible share provision such that the authorized share reserve is reduced by (i) one share for every one share subject to a stock option or share appreciation right granted under the Plan and (ii) 1.7 shares for every one share of common stock that was subject to an award other than an option or share appreciation right.

We also periodically award phantom stock units, which are settled in cash upon vesting and accounted for as liability-based awards with no impact to the shares available for grant.

In addition, we maintain the Employee Stock Purchase Plan (ESPP), for which approximately 348,000 shares of common stock were available for future issuance at September 30, 2017.

Unrestricted stock and ESPP activity for the three and nine months ended September 30, 2017 and 2016 was not significant.

Stock-Based Compensation Expense

Total stock-based compensation expense and the related tax benefit were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(in thousands)			
Stock options	$ 717	$ 602	$ 1,974	$ 1,741
Restricted stock units	4,170	4,595	12,538	10,834
Unrestricted stock awards	232	225	742	725
Phantom stock units	626	371	1,510	658
Total stock-based compensation	$ 5,745	$ 5,793	$ 16,764	$ 13,958
Related tax benefit	$ 1,192	$ 1,289	$ 3,520	$ 3,793

Stock Options

A summary of our stock option activity is as follows:

	Shares	Weighted Average Exercise Price per Share	Weighted Average Remaining Contractual Life	Aggregate Intrinsic Value	Weighted Average Grant Date Fair Value
	(in thousands)		(years)	(in thousands)	
Outstanding, January 1, 2016	1,180	$ 48.31	5.7	$ 405	
Granted	191	40.40			$ 13.27
Exercised	(35)	35.31		214	
Forfeited	(36)	35.29			
Expired	(312)	55.11			
Outstanding, September 30, 2016	988	$ 45.57	6.8	$ 13,732	
Outstanding, January 1, 2017	959	$ 45.64	6.6	$ 19,125	
Granted	135	65.94			$ 21.98
Exercised	(36)	38.68		972	
Forfeited	(35)	47.38			
Expired	(47)	67.43			
Outstanding, September 30, 2017	976	$ 47.60	6.5	$ 30,320	
Exercisable September 30, 2017	631	$ 47.36	5.3	$ 20,197	
Expected to vest, September 30, 2017	344	$ 48.03	8.6	$ 10,123	

At September 30, 2017, total unrecognized stock-based compensation expense related to nonvested stock options was $3.6 million, which is expected to be recognized over a weighted average period of approximately 1.6 years.

The weighted-average assumptions used to estimate the fair value of stock options granted and the resulting weighted average fair value are as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Expected volatility	29.0%	33.7%	32.5%	33.5%
Risk-free interest rate	1.8%	1.3%	2.0%	1.3%
Expected term (years)	5.5	5.5	5.5	5.5
Weighted average fair value	$ 21.84	$ 17.37	$ 21.98	$ 13.27

Restricted Stock Units

The following table summarizes restricted stock unit activity:

	Number of Restricted Stock Units	Weighted Average Grant Date Fair Value	Aggregate Intrinsic Value
	(in thousands)		(in thousands)
Outstanding, January 1, 2016	756		
Granted	196	$ 41.58	
Released	(280)		$ 10,823
Forfeited	(50)		
Outstanding, September 30, 2016	622		
Outstanding, January 1, 2017	701	$ 38.04	
Granted	141	65.54	
Released	(340)	38.51	$ 13,097
Forfeited	(23)	45.27	
Outstanding, September 30, 2017	479	45.64	
Vested but not released, September 30, 2017	9		$ 660
Expected to vest, September 30, 2017	388		$ 30,013

At September 30, 2017, total unrecognized compensation expense on restricted stock units was $25.6 million, which is expected to be recognized over a weighted average period of approximately 1.8 years.

The weighted-average assumptions used to estimate the fair value of performance-based restricted stock units granted and the resulting weighted average fair value are as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Expected volatility	27.9%	28.8%	28.0%	30.0%
Risk-free interest rate	1.4%	0.8%	1.0%	0.7%
Expected term (years)	2.3	2.3	1.7	1.8
Weighted average fair value	$ 80.64	$ 63.10	$ 77.75	$ 44.92

Phantom Stock Units

The following table summarizes phantom stock unit activity:

	Number of Phantom Stock Units	Weighted Average Grant Date Fair Value
	(in thousands)	
Outstanding, January 1, 2016	—	
Granted	63	$ 40.11
Forfeited	(1)	
Outstanding, September 30, 2016	62	
Expected to vest, September 30, 2016	56	
Outstanding, January 1, 2017	62	$ 40.11
Granted	32	65.55
Released	(20)	40.11
Forfeited	(7)	41.61
Outstanding, September 30, 2017	67	52.24
Expected to vest, September 30, 2017	67	

At September 30, 2017, total unrecognized compensation expense on phantom stock units was $3.9 million, which is expected to be recognized over a weighted average period of approximately 1.8 years. As of September 30, 2017 and December 31, 2016, we have recognized a phantom stock liability of $1.4 million and $1.0 million, respectively, within wages and benefits payable in the Consolidated Balance Sheets.

Note 10: Income Taxes

Our tax provision as a percentage of income before tax typically differs from the federal statutory rate of 35%, and may vary from period to period, due to fluctuations in the forecast mix of earnings in domestic and international jurisdictions, new or revised tax legislation and accounting pronouncements, tax credits, state income taxes, adjustments to valuation allowances, and uncertain tax positions, among other items.

Excess tax benefits and tax deficiencies resulting from employee share-based payments have been recognized as income tax provision or benefit in the 2017 Consolidated Statements of Operations pursuant to the adoption of ASU 2016-09 (see Note 1).

Our tax expense for the three and nine months ended September 30, 2017 differed from the federal statutory rate of 35% due to the forecasted mix of earnings in domestic and international jurisdictions, a benefit related to excess tax benefits under ASU 2016-09, and losses experienced in jurisdictions with valuation allowances on deferred tax assets.

Our tax expense for the three and nine months ended September 30, 2016 differed from the federal statutory rate of 35% due to the forecasted mix of earnings in domestic and international jurisdictions and losses experienced in jurisdictions with valuation allowances on deferred tax assets.

We classify interest expense and penalties related to unrecognized tax liabilities and interest income on tax overpayments as components of income tax expense. The net interest and penalties expense recognized were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(in thousands)			
Net interest and penalties expense (benefit)	$ (746)	$ 591	$ (334)	$ 923

Accrued interest and penalties recognized were as follows:

	September 30, 2017	December 31, 2016
	(in thousands)	
Accrued interest	$ 2,879	$ 2,473
Accrued penalties	2,412	2,329

Unrecognized tax benefits related to uncertain tax positions and the amount of unrecognized tax benefits that, if recognized, would affect our effective tax rate were as follows:

	September 30, 2017	December 31, 2016
	(in thousands)	
Unrecognized tax benefits related to uncertain tax positions	$ 63,707	$ 57,626
The amount of unrecognized tax benefits that, if recognized, would affect our effective tax rate	62,335	56,411

At September 30, 2017, we are under examination by certain tax authorities for the 2000 to 2015 tax years. The material jurisdictions where we are subject to examination include, among others, the United States, France, Germany, Italy, Brazil and the United Kingdom. No material changes have occurred to previously disclosed assessments. We believe we have appropriately accrued for the expected outcome of all tax matters and do not currently anticipate that the ultimate resolution of these examinations will have a material adverse effect on our financial condition, future results of operations, or liquidity.

Based upon the timing and outcome of examinations, litigation, the impact of legislative, regulatory, and judicial developments, and the impact of these items on the statute of limitations, it is reasonably possible that the related unrecognized tax benefits could change from those recognized within the next twelve months. However, at this time, an estimate of the range of reasonably possible adjustments to the balance of unrecognized tax benefits cannot be made.

Note 11: Commitments and Contingencies

Guarantees and Indemnifications

We are often required to obtain standby letters of credit (LOCs) or bonds in support of our obligations for customer contracts. These standby LOCs or bonds typically provide a guarantee to the customer for future performance, which usually covers the installation phase of a contract and may, on occasion, cover the operations and maintenance phase of outsourcing contracts.

Our available lines of credit, outstanding standby LOCs, and performance bonds were as follows:

	September 30, 2017	December 31, 2016
	(in thousands)	
Credit facilities		
Multicurrency revolving line of credit	$ 500,000	$ 500,000
Long-term borrowings	(124,523)	(97,167)
Standby LOCs issued and outstanding	(29,095)	(46,103)
Net available for additional borrowings under the multi-currency revolving line of credit	$ 346,382	$ 356,730
Net available for additional standby LOCs under sub-facility	220,905	203,897
Unsecured multicurrency revolving lines of credit with various financial institutions		
Multicurrency revolving lines of credit	$ 110,055	$ 91,809
Standby LOCs issued and outstanding	(20,859)	(21,734)
Short-term borrowings	(2,423)	(69)
Net available for additional borrowings and LOCs	$ 86,773	$ 70,006
Unsecured surety bonds in force	$ 52,278	$ 48,221

In the event any such standby LOC or bond is called, we would be obligated to reimburse the issuer of the standby LOC or bond; however, we do not believe that any outstanding LOC or bond will be called.

We generally provide an indemnification related to the infringement of any patent, copyright, trademark, or other intellectual property right on software or equipment within our sales contracts, which indemnifies the customer from and pays the resulting costs, damages, and attorney's fees awarded against a customer with respect to such a claim provided that: 1) the customer promptly notifies us in writing of the claim and 2) we have the sole control of the defense and all related settlement negotiations. We may also provide an indemnification to our customers for third party claims resulting from damages caused by the negligence or willful misconduct of our employees/agents in connection with the performance of certain contracts. The terms of our indemnifications generally do not limit the maximum potential payments. It is not possible to predict the maximum potential amount of future payments under these or similar agreements.

Legal Matters

We are subject to various legal proceedings and claims of which the outcomes are subject to significant uncertainty. Our policy is to assess the likelihood of any adverse judgments or outcomes related to legal matters, as well as ranges of probable losses. A determination of the amount of the liability required, if any, for these contingencies is made after an analysis of each known issue. A liability is recognized and charged to operating expense when we determine that a loss is probable and the amount can be reasonably estimated. Additionally, we disclose contingencies for which a material loss is reasonably possible, but not probable.

Warranty
A summary of the warranty accrual account activity is as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(in thousands)			
Beginning balance	$ 39,810	$ 45,457	$ 43,302	$ 54,512
New product warranties	2,708	1,976	6,637	5,881
Other adjustments and expirations	(4,346)	1,662	(2,445)	3,697
Claims activity	(3,773)	(4,485)	(14,372)	(19,488)
Effect of change in exchange rates	523	176	1,800	184
Ending balance	34,922	44,786	34,922	44,786
Less: current portion of warranty	21,697	26,084	21,697	26,084
Long-term warranty	$ 13,225	$ 18,702	$ 13,225	$ 18,702

Total warranty expense is classified within cost of revenues and consists of new product warranties issued, costs related to extended warranty contracts, insurance and supplier recoveries, and other changes and adjustments to warranties. Warranty expense was as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(in thousands)			
Total warranty expense	$ (3,148)	$ 3,638	$ (5,318)	$ 9,578

Warranty expense decreased during the nine months ended September 30, 2017 compared with the same period in 2016 primarily due to an insurance recovery in our Water segment of $8.0 million. This recovery is associated with warranty costs previously recognized as a result of our 2015 product replacement notification to customers who had purchased certain communication modules.

Unearned Revenue Related to Extended Warranty
A summary of changes to unearned revenue for extended warranty contracts is as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(in thousands)			
Beginning balance	$ 30,271	$ 33,068	$ 31,549	$ 33,654
Unearned revenue for new extended warranties	302	352	1,006	1,366
Unearned revenue recognized	(1,096)	(905)	(3,163)	(2,640)
Effect of change in exchange rates	121	(31)	206	104
Ending balance	29,598	32,484	29,598	32,484
Less: current portion of unearned revenue for extended warranty	4,305	4,134	4,305	4,134
Long-term unearned revenue for extended warranty within other long-term obligations	$ 25,293	$ 28,350	$ 25,293	$ 28,350

Health Benefits
We are self-insured for a substantial portion of the cost of our U.S. employee group health insurance. We purchase insurance from a third party, which provides individual and aggregate stop-loss protection for these costs. Each reporting period, we expense the costs of our health insurance plan including paid claims, the change in the estimate of incurred but not reported (IBNR) claims, taxes, and administrative fees (collectively, the plan costs).

Plan costs were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(in thousands)			
Plan costs	$ 6,096	$ 6,727	$ 21,592	$ 20,360

The IBNR accrual, which is included in wages and benefits payable, was as follows:

	September 30, 2017	December 31, 2016
	(in thousands)	
IBNR accrual	$ 2,605	$ 2,441

Our IBNR accrual and expenses may fluctuate due to the number of plan participants, claims activity, and deductible limits. For our employees located outside of the United States, health benefits are provided primarily through governmental social plans, which are funded through employee and employer tax withholdings.

Note 12: Restructuring

2016 Projects

On September 1, 2016, we announced projects (2016 Projects) to restructure various company activities in order to improve operational efficiencies, reduce expenses and improve competiveness. We expect to close or consolidate several facilities and reduce our global workforce as a result of the restructuring.

The 2016 Projects began during the three months ended September 30, 2016, and we expect to substantially complete the 2016 Projects by the end of 2018. Many of the affected employees are represented by unions or works councils, which require consultation, and potential restructuring projects may be subject to regulatory approval, both of which could impact the timing of charges, total expected charges, cost recognized, and planned savings in certain jurisdictions.

The total expected restructuring costs, the restructuring costs recognized during the nine months ended September 30, 2017, and the remaining expected restructuring costs as of September 30, 2017 related to the 2016 Projects are as follows:

	Total Expected Costs at September 30, 2017	Costs Recognized in Prior Periods	Costs Recognized During the Nine Months Ended September 30, 2017	Expected Remaining Costs to be Recognized at September 30, 2017
	(in thousands)			
Employee severance costs	$ 44,518	$ 39,686	$ 4,832	$ —
Asset impairments & net loss (gain) on sale or disposal	6,499	7,219	(720)	—
Other restructuring costs	12,194	889	3,305	8,000
Total	$ 63,211	$ 47,794	$ 7,417	$ 8,000
Segments:				
Electricity	$ 11,884	$ 8,827	$ 1,557	$ 1,500
Gas	32,185	23,968	4,717	3,500
Water	16,007	13,061	446	2,500
Corporate unallocated	3,135	1,938	697	500
Total	$ 63,211	$ 47,794	$ 7,417	$ 8,000

2014 Projects

In November 2014, our management approved restructuring projects (2014 Projects) to restructure our Electricity business and related general and administrative activities, along with certain Gas and Water activities, to improve operational efficiencies and reduce expenses. We began implementing these projects in the fourth quarter of 2014, and substantially completed them in the third quarter of 2016. Project activities will continue through the fourth quarter of 2017; however, no further costs are expected to be recognized related to the 2014 Projects.

The 2014 Projects resulted in $48.5 million of restructuring expense, which was recognized from the fourth quarter of 2014 through the third quarter of 2016.

The following table summarizes the activity within the restructuring related balance sheet accounts for the 2016 and 2014 Projects during the nine months ended September 30, 2017:

	Accrued Employee Severance	Asset Impairments & Net Loss on Sale or Disposal	Other Accrued Costs	Total
		(in thousands)		
Beginning balance, January 1, 2017	$ 45,368	$ —	$ 2,602	$ 47,970
Costs charged to expense	4,832	(720)	3,305	7,417
Cash payments	(9,158)	—	(3,198)	(12,356)
Non-cash items	—	720	—	720
Effect of change in exchange rates	4,144	—	5	4,149
Ending balance, September 30, 2017	$ 45,186	$ —	$ 2,714	$ 47,900

Asset impairments are determined at the asset group level. Revenues and net operating income from the activities we have exited or will exit under the restructuring projects are not material to our operating segments or consolidated results.

Other restructuring costs include expenses for employee relocation, professional fees associated with employee severance, and costs to exit the facilities once the operations in those facilities have ceased. Costs associated with restructuring activities are generally presented in the Consolidated Statements of Operations as restructuring, except for certain costs associated with inventory write-downs, which are classified within cost of revenues, and accelerated depreciation expense, which is recognized according to the use of the asset.

The current restructuring liabilities were $26.7 million and $26.2 million as of September 30, 2017 and December 31, 2016. The current restructuring liabilities are classified within other current liabilities on the Consolidated Balance Sheets. The long-term restructuring liabilities balances were $21.2 million and $21.8 million as of September 30, 2017 and December 31, 2016. The long-term restructuring liabilities are classified within other long-term obligations on the Consolidated Balance Sheets, and include facility exit costs and severance accruals.

Note 13: Shareholders' Equity

Preferred Stock

We have authorized the issuance of 10 million shares of preferred stock with no par value. In the event of a liquidation, dissolution, or winding up of the affairs of the corporation, whether voluntary or involuntary, the holders of any outstanding preferred stock would be entitled to be paid a preferential amount per share to be determined by the Board of Directors prior to any payment to holders of common stock. There was no preferred stock issued or outstanding at September 30, 2017 and December 31, 2016.

Stock Repurchase Authorization

On February 23, 2017, Itron's Board of Directors authorized the Company to repurchase up to $50 million of our common stock over a 12-month period, beginning February 23, 2017. We did not repurchase any shares of common stock during the three and nine months ended September 30, 2017.

Other Comprehensive Income (Loss)

The before-tax amount, income tax (provision) benefit, and net-of-tax amount related to each component of OCI were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(in thousands)			
Before-tax amount				
Foreign currency translation adjustment	$ 14,169	$ 9,128	$ 49,755	$ 12,856
Foreign currency translation adjustment reclassified into net income	1,089	—	1,089	(1,407)
Net unrealized gain (loss) on derivative instruments designated as cash flow hedges	57	602	(480)	(6,039)
Net hedging loss reclassified into net income	148	279	785	845
Net defined benefit plan gain (loss) reclassified to net income	447	(1,725)	1,271	(2,520)
Total other comprehensive income (loss), before tax	15,910	8,284	52,420	3,735
Tax (provision) benefit				
Foreign currency translation adjustment	(328)	56	(451)	(539)
Foreign currency translation adjustment reclassified into net income	—	—	—	—
Net unrealized gain (loss) on derivative instruments designated as cash flow hedges	(22)	(231)	185	2,330
Net hedging loss reclassified into net income	(57)	(108)	(303)	(326)
Net defined benefit plan gain (loss) reclassified to net income	(37)	527	(267)	713
Total other comprehensive income (loss) tax benefit	(444)	244	(836)	2,178
Net-of-tax amount				
Foreign currency translation adjustment	13,841	9,184	49,304	12,317
Foreign currency translation adjustment reclassified into net income	1,089	—	1,089	(1,407)
Net unrealized gain (loss) on derivative instruments designated as cash flow hedges	35	371	(295)	(3,709)
Net hedging loss reclassified into net income	91	171	482	519
Net defined benefit plan gain (loss) reclassified to net income	410	(1,198)	1,004	(1,807)
Total other comprehensive income (loss), net of tax	$ 15,466	$ 8,528	$ 51,584	$ 5,913

The changes in the components of AOCI, net of tax, were as follows:

	Foreign Currency Translation Adjustments	Net Unrealized Gain (Loss) on Derivative Instruments	Net Unrealized Gain (Loss) on Nonderivative Instruments	Pension Benefit Obligation Adjustments	Total
			(in thousands)		
Balances at January 1, 2016	$ (158,009)	$ 318	$ (14,380)	$ (28,536)	$ (200,607)
OCI before reclassifications	12,317	(3,709)	—	(713)	7,895
Amounts reclassified from AOCI	(1,407)	519	—	(1,094)	(1,982)
Total other comprehensive income (loss)	10,910	(3,190)	—	(1,807)	5,913
Balances at September 30, 2016	$ (147,099)	$ (2,872)	$ (14,380)	$ (30,343)	$ (194,694)
Balances at January 1, 2017	$ (182,986)	$ 43	$ (14,380)	$ (32,004)	$ (229,327)
OCI before reclassifications	49,304	(295)	—	—	49,009
Amounts reclassified from AOCI	1,089	482	—	1,004	2,575
Total other comprehensive income (loss)	50,393	187	—	1,004	51,584
Balances at September 30, 2017	$ (132,593)	$ 230	$ (14,380)	$ (31,000)	$ (177,743)

Note 14: Fair Values of Financial Instruments

The following table presents the fair values of our financial instruments:

	September 30, 2017		December 31, 2016	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
	(in thousands)			
Assets				
Cash and cash equivalents	$ 137,584	$ 137,584	$ 133,565	$ 133,565
Foreign exchange forwards	96	96	169	169
Interest rate swaps	1,277	1,277	1,830	1,830
Interest rate caps	384	384	946	946
Liabilities				
Credit facility				
USD denominated term loan	$ 198,281	$ 196,313	$ 208,125	$ 205,676
Multicurrency revolving line of credit	124,523	123,142	97,167	95,906
Interest rate swaps	—	—	934	934
Foreign exchange forwards	554	554	449	449

The following methods and assumptions were used in estimating fair values:

Cash and cash equivalents: Due to the liquid nature of these instruments, the carrying amount approximates fair value (Level 1).

Credit facility - term loan and multicurrency revolving line of credit: The term loan and revolver are not traded publicly. The fair values, which are valued based upon a hypothetical market participant, are calculated using a discounted cash flow model with Level 2 inputs, including estimates of incremental borrowing rates for debt with similar terms, maturities, and credit profiles. Refer to Note 6 for a further discussion of our debt.

Derivatives: See Note 7 for a description of our methods and assumptions in determining the fair value of our derivatives, which were determined using Level 2 inputs.

The fair values at September 30, 2017 and December 31, 2016 do not reflect subsequent changes in the economy, interest rates, tax rates, and other variables that may affect the determination of fair value.

Note 15: Segment Information

We operate under the Itron brand worldwide and manage and report under three operating segments: Electricity, Gas, and Water. Our Water operating segment includes our global water, and heat and allocation solutions. This structure allows each segment to develop its own go-to-market strategy, prioritize its marketing and product development requirements, and focus on its strategic investments. Our sales and marketing functions are managed under each segment. Our product development and manufacturing operations are managed on a worldwide basis to promote a global perspective in our operations and processes while serving the needs of our segments.

We have three GAAP measures of segment performance: revenue, gross profit (margin), and operating income (margin). Intersegment revenues are minimal. Certain operating expenses are allocated to the operating segments based upon internally established allocation methodologies. Corporate operating expenses, interest income, interest expense, other income (expense), and income tax provision are not allocated to the segments, and are not included in the measure of segment profit or loss. In addition, we allocate only certain production assets and intangible assets to our operating segments. We do not manage the performance of the segments on a balance sheet basis.

Segment Products

Electricity	Standard electricity (electromechanical and electronic) meters; smart metering solutions that include one or several of the following: smart electricity meters; smart electricity communication modules; prepayment systems, including smart key, keypad, and smart card communication technologies; smart systems including handheld, mobile, and fixed network collection technologies; smart network technologies; meter data management software; knowledge application solutions; installation; implementation; and professional services including consulting and analysis.
Gas	Standard gas meters; smart metering solutions that include one or several of the following: smart gas meters; smart gas communication modules; prepayment systems, including smart key, keypad, and smart card communication technologies; smart systems, including handheld, mobile, and fixed network collection technologies; smart network technologies; meter data management software; knowledge application solutions installation; implementation; and professional services including consulting and analysis.
Water	Standard water and heat meters; smart metering solutions that include one or several of the following: smart water meters and communication modules; smart heat meters; smart systems including handheld, mobile, and fixed network collection technologies; meter data management software; knowledge application solutions; installation; implementation; and professional services including consulting and analysis.

Revenues, gross profit, and operating income associated with our segments were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(in thousands)			
Revenues				
Electricity	$ 240,142	$ 242,667	$ 729,225	$ 692,785
Gas	131,780	144,185	394,691	433,707
Water	114,825	120,007	343,505	390,981
Total Company	$ 486,747	$ 506,859	$ 1,467,421	$ 1,517,473
Gross profit				
Electricity	$ 76,440	$ 75,362	$ 222,227	$ 210,840
Gas	46,260	56,096	147,036	158,156
Water	42,618	39,291	131,140	134,661
Total Company	$ 165,318	$ 170,749	$ 500,403	$ 503,657
Operating income (loss)				
Electricity	$ 17,114	$ 20,452	$ 51,629	$ 51,092
Gas	20,030	7,136	57,849	48,811
Water	14,837	(3,546)	40,258	28,707
Corporate unallocated	(14,617)	(17,632)	(45,508)	(63,153)
Total Company	37,364	6,410	104,228	65,457
Total other income (expense)	(3,870)	(1,882)	(14,106)	(8,824)
Income before income taxes	$ 33,494	$ 4,528	$ 90,122	$ 56,633

For the three and nine months ended September 30, 2017, one customer represented 20% for both periods and another customer represented 14% and 10%, respectively, of total Electricity segment revenues. For the three months ended September 30, 2017, one customer represented 10% of total company revenues. For the nine months ended September 30, 2017, no single customer represented more than 10% of total company revenues. For the three and nine months ended September 30, 2017, no single customer represented more than 10% of the Gas or Water segment revenues.

For the three and nine months ended September 30, 2016, one customer represented 14% and another customer represented 12%, respectively, of total Electricity segment revenues. For the three and nine months ended September 30, 2016, no single customer represented more than 10% of the Gas or Water segment or total company revenues.

We currently buy a majority of our integrated circuit boards, an important component in our products, from two suppliers. Management believes that other suppliers could provide similar circuit boards, but a change in suppliers, disputes with our suppliers, or unexpected constraints on the suppliers' production capacity could adversely affect operating results.

During the nine months ended September 30, 2017, we recognized an insurance recovery in our Water segment associated with warranty costs recognized as a result of our 2015 product replacement notification to customers who had purchased certain communication modules. As a result, gross profit increased $8.0 million for the nine months ended September 30, 2017. After adjusting for the tax impact, the recovery resulted in an increase of $0.13 and $0.12 for basic and diluted EPS, respectively, for the nine months ended September 30, 2017.

Revenues by region were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(in thousands)			
United States and Canada	$ 259,796	$ 297,116	$ 824,630	$ 837,468
Europe, Middle East, and Africa	171,924	161,959	493,505	545,517
Other[1]	55,027	47,784	149,286	134,488
Total revenues	$ 486,747	$ 506,859	$ 1,467,421	$ 1,517,473

[1] The Other region includes our operations in Latin America and Asia Pacific.

Depreciation and amortization expense associated with our segments was as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(in thousands)			
Electricity	$ 6,687	$ 6,682	$ 17,772	$ 21,715
Gas	5,084	5,595	13,831	15,484
Water	3,860	5,022	11,706	14,040
Corporate unallocated	901	(1,217)	2,691	324
Total Company	$ 16,532	$ 16,082	$ 46,000	$ 51,563

Note 16: Business Combinations

On June 1, 2017, we completed the acquisition of Comverge, which was financed through borrowings on our multicurrency revolving line of credit and cash on hand. Comverge is a leading provider of integrated demand response and customer engagement solutions that enable electric utilities to ensure grid reliability, lower energy costs for consumers, meet regulatory demands, and enhance the customer experience. Comverge's technologies are complementary to our Electricity segment's growing software and services offerings, and will help optimize grid performance and reliability.

The preliminary purchase price of Comverge is $99.5 million in cash, net of $18.2 million of cash and cash equivalents acquired. We made a preliminary allocation of the purchase price to the assets acquired and liabilities assumed based on estimated fair value assessments during the second quarter. During the three months ended September 30, 2017, we updated the estimated fair value of certain deferred tax assets acquired, resulting in immaterial changes to other long-term assets, goodwill, and long-term liabilities. We are continuing to collect information to determine the fair values of intangible assets, working capital, and deferred income taxes, all of which would affect goodwill. The fair values of these assets and liabilities are provisional until we are able to complete our assessment. The following reflects our preliminary allocation of purchase price as of June 1, 2017:

	Fair Value	Weighted Average Useful Life
	(in thousands)	(in years)
Current assets	$ 15,118	
Property, plant, and equipment	2,275	
Other long-term assets	1,879	
Identified intangible assets		
Core-developed technology	19,250	8
Customer contracts and relationships	12,230	10
Trademarks and trade names	4,310	15
Total identified intangible assets subject to amortization	35,790	10
In-process research and development (IPR&D)	710	
Total identified intangible assets	36,500	
Goodwill	59,137	
Current liabilities	(10,787)	
Long-term liabilities	(4,645)	
Total net assets acquired	$ 99,477	

The fair values for the identified core-developed technology, trademarks, and IPR&D intangible assets were estimated using the income approach. Under the income approach, the fair value reflects the present value of the projected cash flows that are expected to be generated. Core-developed technology represents the fair values of Comverge products that have reached technological feasibility and were part of Comverge's product offerings at the date of the acquisition. Customer contracts and relationships represent the fair value of the relationships developed with its customers, including the backlog, and these were valued utilizing the replacement cost method, which measures the value of an asset based on the cost to replace the existing asset. The core-developed technology, trademarks, and IPR&D intangible assets valued using the income approach will be amortized using the estimated discounted cash flows assumed in the valuation models. Customer contracts and relationships will be amortized using the straight-line method.

IPR&D assets acquired represent the fair value of Comverge research and development projects that have not yet reached technological feasibility. These projects are expected to be completed in the next three months. Incremental costs to be incurred for these projects, currently estimated at $0.4 million, will be recognized as product development expense as incurred within the Consolidated Statements of Operations.

Goodwill of $59.1 million arising from the acquisition consists largely of the synergies expected from combining the operations of Itron and Comverge, as well as certain intangible assets that do not qualify for separate recognition. All of the goodwill balance was assigned to the Electricity reporting unit and segment. We will not be able to deduct any of the goodwill balance for income tax purposes.

The following table presents the revenues and net income (loss) from Comverge's operations that are included in our Consolidated Statements of Operations:

	July 1, 2017 - September 30, 2017	June 1, 2017 - September 30, 2017
	(in thousands)	
Revenues	$ 14,183	$ 18,979
Net income (loss)	(128)	(1,914)

The following supplemental pro forma results are based on the individual historical results of Itron and Comverge, with adjustments to give effect to the combined operations as if the acquisition had been consummated on January 1, 2016.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(in thousands)			
Revenues	$ 486,747	$ 524,471	$ 1,489,533	$ 1,563,405
Net income (loss)	27,414	(8,607)	61,475	16,148

The significant nonrecurring adjustments reflected in the proforma schedule above are not considered material and include the following:

- Elimination of transaction costs incurred by Comverge and Itron prior to the acquisition completion
- Reclassification of certain expenses incurred after the acquisition to the appropriate periods assuming the acquisition closed on January 1, 2016

The supplemental pro forma results are intended for information purposes only and do not purport to represent what the combined companies' results of operations would actually have been had the transaction in fact occurred at an earlier date or project the results for any future date or period.

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

The following discussion and analysis should be read in conjunction with the unaudited condensed consolidated financial statements and notes included in this report and with our Annual Report on Form 10-K for the year ended December 31, 2016, filed with the Securities and Exchange Commission (SEC) on March 1, 2017.

Documents we provide to the SEC are available free of charge under the Investors section of our website at *www.itron.com* as soon as practicable after they are filed with or furnished to the SEC. In addition, these documents are available at the SEC's website (http://*www.sec.gov*), at the SEC's Headquarters at 100 F Street, NE, Washington, DC 20549, or by calling 1-800-SEC-0330.

Certain Forward-Looking Statements

This document contains forward-looking statements concerning our operations, financial performance, revenues, earnings growth, liquidity, restructuring, and other items. This document reflects our current plans and expectations and is based on information currently available as of the date of this Quarterly Report on Form 10-Q. When we use the words "expect," "intend," "anticipate," "believe," "plan," "project," "estimate," "future," "objective," "may," "will," "will continue," and similar expressions, they are intended to identify forward-looking statements. Forward-looking statements rely on a number of assumptions and estimates. Although we believe that these assumptions and estimates are reasonable, any of these assumptions and estimates could prove to be inaccurate and the forward looking statements based on them could be incorrect and cause our actual results to vary materially from expected results. Our operations involve risks and uncertainties which could materially affect our results of operations and whether the forward looking statements ultimately prove to be correct. These risks and uncertainties include 1) the rate and timing of customer demand for our products, 2) failure to meet performance or delivery milestones in customer contracts, 3) our dependence on certain key vendors and components, 4) rescheduling or cancellations of current customer orders and commitments, 5) our dependence on customers' acceptance of new products and their performance, 6) future business combinations and integrations, 7) changes in estimated liabilities for product warranties and/or litigation, 8) competition, 9) changes in foreign currency exchange rates and interest rates, 10) changes in domestic and international laws and regulations, 11) international business risks, 12) key personnel who are critical to the success of our business, 13) our own and our customers' or suppliers' access to and cost of capital, and 14) other factors. For a more complete description of these and other risks, refer to Item 1A: "Risk Factors" included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, which was filed with the SEC on March 1, 2017 and our other reports on file with the SEC. We do not undertake any obligation to update or revise any forward looking statement in this document.

Overview

We are a technology company, offering end-to-end solutions to enhance productivity and efficiency, primarily focused on utilities and municipalities around the globe. Our solutions generally include robust industrial grade networks, smart meters, meter data management software, and knowledge application solutions, which bring additional value to the customer. Our professional services help our customers project-manage, install, implement, operate, and maintain their systems. We operate under the Itron brand worldwide and manage and report under three operating segments, Electricity, Gas, and Water. Our Water operating segment includes our global water, and heat and allocation solutions. This structure allows each segment to develop its own go-to-market strategy, prioritize its marketing and product development requirements, and focus on its strategic investments. Our sales and marketing functions are managed under each segment. Our product development and manufacturing operations are managed on a worldwide basis to promote a global perspective in our operations and processes while serving the needs of our segments.

We have three measures of segment performance: revenues, gross profit (margin), and operating income (margin). Intersegment revenues are minimal. Certain operating expenses are allocated to the operating segments based upon internally established allocation methodologies. Interest income, interest expense, other income (expense), income tax provision, and certain corporate operating expenses are neither allocated to the segments nor included in the measures of segment performance.

The following discussion includes financial information prepared in accordance with accounting principles generally accepted in the United States (GAAP), as well as certain adjusted or non-GAAP financial measures such as constant currency, free cash flow, non-GAAP operating expenses, non-GAAP operating income, non-GAAP net income, adjusted EBITDA, and non-GAAP diluted earnings per share (EPS). We believe that non-GAAP financial measures, when reviewed in conjunction with GAAP financial measures, can provide more information to assist investors in evaluating current period performance and in assessing future performance. For these reasons, our internal management reporting also includes non-GAAP measures. We strongly encourage investors and shareholders to review our financial statements and publicly-filed reports in their entirety and not to rely on any single financial measure. Non-GAAP measures as presented herein may not be comparable to similarly titled measures used by other companies.

In our discussions of the operating results below, we sometimes refer to the impact of foreign currency exchange rate fluctuations, which are references to the differences between the foreign currency exchange rates we use to convert operating results from local currencies into U.S. dollars for reporting purposes. We also use the term "constant currency," which represents results adjusted to exclude foreign currency exchange rate impacts. We calculate the constant currency change as the difference between the current period results translated using the current period currency exchange rates and the comparable prior period's results restated using current period currency exchange rates. We believe the reconciliations of changes in constant currency provide useful supplementary information to investors in light of fluctuations in foreign currency exchange rates.

Refer to the *Non-GAAP Measures* section below on pages 43-45 for information about these non-GAAP measures and the detailed reconciliation of items that impacted free cash flow, non-GAAP operating expense, non-GAAP operating income, non-GAAP net income, adjusted EBITDA, and non-GAAP diluted EPS in the presented periods.

Total Company Highlights and Unit Shipments

Highlights and significant developments for the three months ended September 30, 2017

- Revenues were $486.7 million compared with $506.9 million in the same period last year, a decrease of $20.1 million, or 4%.
- Gross margin was 34.0% compared with 33.7% in the same period last year.
- Operating expenses decreased $36.4 million, or 22%, compared with the same period last year.
- Net income attributable to Itron, Inc. was $25.6 million, compared with a net loss of $9.9 million in the same period last year.
- Adjusted EBITDA decreased $5.2 million compared with the same period last year to $57.5 million.
- GAAP diluted EPS increased by $0.91 to $0.65 compared with the same period last year.
- Non-GAAP diluted EPS was consistent with the prior year at $0.77.

Highlights and significant developments for the nine months ended September 30, 2017

- Revenues decreased $50.1 million, or 3%, to $1.5 billion compared with the same period last year.
- Gross margin was 34.1% compared with 33.2% in the same period last year.
- Operating expenses were $42.0 million, or 10% lower compared with the same period last year.
- Net income attributable to Itron, Inc. was $55.5 million compared with $20.1 million in the same period last year.
- Adjusted EBITDA increased $7.4 million, or 5%, compared with the same period last year.
- GAAP diluted EPS increased $0.89 to $1.41 compared with the same period last year.
- Non-GAAP diluted EPS improved $0.18 to $2.05 compared with the same period last year.
- Total backlog was $1.5 billion and twelve-month backlog was $847 million at September 30, 2017.

On June 1, 2017, we completed the acquisition of Comverge by purchasing its parent Peak Holding Corp. (Comverge). Comverge is an industry leading provider of integrated cloud-based demand response, energy efficiency and customer engagement solutions that allow electric utilities to improve grid reliability, lower energy costs, meet regulatory demands, and enhance customer experience. This acquisition provides opportunities to combine our technologies and continues our focus on transitioning from a hardware manufacturer into a total solutions provider, delivering even more value to our customers.

The acquisition resulted in the recognition of $36.5 million in intangible assets that will be amortized over 8-15 years, and goodwill in our Electricity reporting unit of $59.1 million. We anticipate this acquisition will have minimal impact on our non-GAAP diluted EPS for the year ended December 31, 2017 and it will be accretive for the year ended December 31, 2018. Comverge contributed $19.0 million in revenues after the acquisition on June 1, 2017. For further discussion of the Comverge acquisition, refer to Item 1: "Financial Statements, Note 16: Business Combinations."

On September 17, 2017, we entered into an Agreement and Plan of Merger with Silver Spring Networks, Inc., (Silver Spring) to acquire all outstanding shares of Silver Spring for $16.25 per share, in cash, resulting in a preliminary value of approximately $830 million, net of Silver Spring cash on hand. Silver Spring provides Internet of Important Things™ connectivity platforms and solutions to utilities and cities.

The planned acquisition continues our focus on expanding management services and SaaS solutions, which allows us to provide more value to our customers by optimizing devices, network technologies, outcomes and analytics. Silver Spring had $311 million in revenues in 2016, and we anticipate the transaction will be accretive to our non-GAAP dilutive EPS and adjusted EBITDA in year two following closing of the transaction. We also anticipate approximately $50 million in synergies will be realized within

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three years of the acquisition. The acquisition is expected to close in late 2017 or early 2018 and is subject to customary closing conditions, including regulatory approval and the approval of Silver Spring's stockholders.

As we continue to transform our business, we have taken several steps to realize business efficiencies, margin improvement and cost savings. This includes implementing our global restructuring and strategic sourcing projects. While we are confident these transitions will provide significant future benefits, we experienced temporary shipment delays as our activities related to transitioning the supply chain, consolidating manufacturing operations, and delivery of new products increased significantly during the quarter. As a result, this unfavorably impacted our revenues during the three months ended September 30, 2017. We have implemented actions to address the inefficiencies, and we do not anticipate a material impact to our fourth quarter results.

The following table summarizes the changes in GAAP and Non-GAAP financial measures:

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2017	2016	% Change	2017	2016	% Change
	(in thousands, except margin and per share data)					
GAAP						
Revenues	$ 486,747	$ 506,859	(4)%	$ 1,467,421	$ 1,517,473	(3)%
Gross profit	165,318	170,749	(3)%	500,403	503,657	(1)%
Operating expenses	127,954	164,339	(22)%	396,175	438,200	(10)%
Operating income	37,364	6,410	483%	104,228	65,457	59%
Other income (expense)	(3,870)	(1,882)	106%	(14,106)	(8,824)	60%
Income tax provision	(6,640)	(13,430)	(51)%	(32,247)	(34,249)	(6)%
Net income (loss) attributable to Itron, Inc.	25,576	(9,885)	N/A	55,518	20,121	176%
Non-GAAP(1)						
Non-GAAP operating expenses	$ 115,764	$ 118,844	(3)%	$ 359,570	$ 378,106	(5)%
Non-GAAP operating income	49,554	51,905	(5)%	140,833	125,551	12%
Non-GAAP net income attributable to Itron, Inc.	30,585	29,896	2%	80,695	71,871	12%
Adjusted EBITDA	57,482	62,715	(8)%	162,206	154,775	5%
GAAP Margins and Earnings Per Share						
Gross margin	34.0%	33.7%		34.1%	33.2%	
Operating margin	7.7%	1.3%		7.1%	4.3%	
Basic EPS	$ 0.66	$ (0.26)		$ 1.44	$ 0.53	
Diluted EPS	0.65	(0.26)		1.41	0.52	
Non-GAAP Earnings Per Share(1)						
Non-GAAP diluted EPS	$ 0.77	$ 0.77		$ 2.05	$ 1.87	

(1) These measures exclude certain expenses that we do not believe are indicative of our core operating results. See pages 43-45 for information about these non-GAAP measures and reconciliations to the most comparable GAAP measures.

Meter and Module Summary

We classify meters into two categories:

- Standard metering – no built-in remote reading communication technology
- Smart metering – one-way communication of meter data or two-way communication including remote meter configuration and upgrade (consisting primarily of our OpenWay® technology)

In addition, smart meter communication modules can be sold separately from the meter.

Our revenues are driven significantly by sales of meters and communication modules. A summary of our meter and communication module shipments is as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(units in thousands)			
Meters				
Standard	3,640	3,520	12,000	12,020
Smart	2,590	2,390	7,600	6,900
Total meters	6,230	5,910	19,600	18,920
Stand-alone communication modules				
Smart	1,480	1,570	4,410	4,470

Results of Operations

Revenues and Gross Margin

The actual results and effects of changes in foreign currency exchange rates in revenues and gross profit were as follows:

	Three Months Ended September 30, 2017	Three Months Ended September 30, 2016	Effect of Changes in Foreign Currency Exchange Rates	Constant Currency Change(1)	Total Change
			(in thousands)		
Total Company					
Revenues	$ 486,747	$ 506,859	$ 8,568	$ (28,680)	$ (20,112)
Gross profit	165,318	170,749	2,278	(7,709)	(5,431)

	Nine Months Ended September 30, 2017	Nine Months Ended September 30, 2016	Effect of Changes in Foreign Currency Exchange Rates	Constant Currency Change(1)	Total Change
			(in thousands)		
Total Company					
Revenues	$ 1,467,421	$ 1,517,473	$ (3,156)	$ (46,896)	$ (50,052)
Gross profit	500,403	503,657	(1,989)	(1,265)	(3,254)

(1) Constant currency change is a non-GAAP financial measure and represents the total change between periods excluding the effect of changes in foreign currency exchange rates.

Revenues

Revenues decreased $20.1 million and $50.1 million, or 4% and 3%, for the three and nine months ended September 30, 2017, compared with the same periods in 2016. For the three months ended September 30, 2017, revenues declined in the Electricity, Gas, and Water segments by $2.5 million, $12.4 million, and $5.2 million, respectively, compared with the same period in 2016. The reduced revenues are primarily the result of delays caused by our supply chain transitions and consolidation of manufacturing facilities. For the nine months ended September 30, 2017, revenues in the Electricity segment increased by $36.4 million, while revenues decreased in the Gas and Water segments $39.0 million and $47.5 million, respectively, compared with the same period in 2016. Comverge contributed $14.2 million and $19.0 million in revenues during the three and nine months ended September 30, 2017. The effect of changes in foreign currency exchange rates favorably impacted revenues for the three months ended September 30, 2017 by $8.6 million, while unfavorably impacting revenues for the nine months ended September 30, 2017 by $3.2 million.

For the three months ended September 30, 2017, one customer represented 10% of total company revenues. No customer represented more than 10% of total revenues for the nine months ended September 30, 2017 or the three and nine months ended September 30, 2016. Our 10 largest customers accounted for 33% of total revenues during the three and nine months ended September 30, 2017, and 33% and 31% of total revenues during the three and nine months ended September 30, 2016, respectively.

Gross Margin

Gross margin for the third quarter of 2017 was 34.0%, compared with 33.7% for the same period in 2016. The increased gross margin was primarily driven by reduced warranty expense in our Water segment and improved product mix in Electricity, partially offset by decreased revenues in all segments.

Gross margin for the nine months ended September 30, 2017 was 34.1%, compared with 33.2% for the same period in 2016. Gross margin improved primarily due to reduced warranty expense in the Water segment. In the second quarter of 2017, we received an $8.0 million insurance recovery related to warranty expense previously recognized as a result of the 2015 product replacement notification to customers who had purchased certain communication modules, which contributed approximately 50 basis points to gross margin.

Operating Expenses

The actual results and effects of changes in foreign currency exchange rates in operating expenses were as follows:

	Three Months Ended September 30,		Effect of Changes in Foreign Currency Exchange Rates	Constant Currency Change[1]	Total Change
	2017	2016			
			(in thousands)		
Total Company					
Sales and marketing	$ 40,780	$ 38,894	$ 935	$ 951	$ 1,886
Product development	42,560	39,386	578	2,596	3,174
General and administrative	39,667	40,384	827	(1,544)	(717)
Amortization of intangible assets	5,625	4,996	211	418	629
Restructuring	(678)	40,679	1,826	(43,183)	(41,357)
Total Operating expenses	$ 127,954	$ 164,339	$ 4,377	$ (40,762)	$ (36,385)

	Nine Months Ended September 30,		Effect of Changes in Foreign Currency Exchange Rates	Constant Currency Change[1]	Total Change
	2017	2016			
			(in thousands)		
Total Company					
Sales and marketing	$ 127,001	$ 119,037	$ 97	$ 7,867	$ 7,964
Product development	126,539	128,086	(543)	(1,004)	(1,547)
General and administrative	120,074	130,781	1,118	(11,825)	(10,707)
Amortization of intangible assets	15,144	19,002	(129)	(3,729)	(3,858)
Restructuring	7,417	41,294	1,237	(35,114)	(33,877)
Total Operating expenses	$ 396,175	$ 438,200	$ 1,780	$ (43,805)	$ (42,025)

(1) Constant currency change is a non-GAAP financial measure and represents the total change between periods excluding the effect of changes in foreign currency exchange rates.

Operating expenses decreased $36.4 million for the three months ended September 30, 2017 as compared with the same period in 2016. This was primarily due to decreased restructuring expense, which were elevated during the three months ended September 30, 2016 following the announcement of the 2016 Projects along with higher general and administrative expenses due to legal and professional services fees in 2016. These decreases were partially offset by an increase in product development expense and acquisition and integration related expense during the current period.

Operating expenses decreased $42.0 million for the nine months ended September 30, 2017 as compared with the same period in 2016. This was primarily due to decreases in restructuring and general and administrative expenses, partially offset by increases in sales and marketing expenses. General and administrative expenses decreased due to reduced legal and professional services fees as compared with 2016, more than offsetting acquisition and integration related expenses in 2017.

Other Income (Expense)

The following table shows the components of other income (expense):

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2017	2016	% Change	2017	2016	% Change
	(in thousands)			(in thousands)		
Interest income	$ 729	$ 102	615%	$ 1,468	$ 594	147%
Interest expense	(2,631)	(2,419)	9%	(7,648)	(7,538)	1%
Amortization of prepaid debt fees	(267)	(272)	(2)%	(800)	(806)	(1)%
Other income (expense), net	(1,701)	707	N/A	(7,126)	(1,074)	564%
Total other income (expense)	$ (3,870)	$ (1,882)	106%	$ (14,106)	$ (8,824)	60%

Total other income (expense) for the three and nine months ended September 30, 2017 was a net expense of $3.9 million and $14.1 million, respectively, compared with $1.9 million and $8.8 million in the same period in 2016. The change in other income (expense), net, for the three and nine months ended September 30, 2017 as compared with the same period in 2016 was a result of fluctuations in the recognized foreign currency exchange gains and losses due to transactions denominated in a currency other than the reporting entity's functional currency.

Income Tax Provision

For the three and nine months ended September 30, 2017, our income tax provision was $6.6 million and $32.2 million compared with $13.4 million and $34.2 million for the same periods in 2016. Our tax rate for the three and nine months ended September 30, 2017 of 20% and 36% differed from the federal statutory rate of 35% due to the forecasted mix of earnings in domestic and international jurisdictions, a benefit related to excess tax benefits under ASU 2016-09, and losses experienced in jurisdictions with valuation allowances on deferred tax assets. Our tax rate for the three and nine months ended September 30, 2016 of 297% and 60% differed from the federal statutory rate of 35% due to the forecasted mix of earnings in domestic and international jurisdictions and losses experienced in jurisdictions with valuation allowances on deferred tax assets.

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Operating Segment Results

For a description of our operating segments, refer to Item 1: "Financial Statements Note 15: Segment Information."

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2017	2016	% Change	2017	2016	% Change
Segment Revenues	(in thousands)			(in thousands)		
Electricity	$ 240,142	$ 242,667	(1)%	$ 729,225	$ 692,785	5%
Gas	131,780	144,185	(9)%	394,691	433,707	(9)%
Water	114,825	120,007	(4)%	343,505	390,981	(12)%
Total revenues	$ 486,747	$ 506,859	(4)%	$ 1,467,421	$ 1,517,473	(3)%

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2017		2016		2017		2016	
	Gross Profit	*Gross Margin*	*Gross Profit*	*Gross Margin*	*Gross Profit*	*Gross Margin*	*Gross Profit*	*Gross Margin*
Segment Gross Profit and Margin	(in thousands)		(in thousands)		(in thousands)		(in thousands)	
Electricity	$ 76,440	31.8%	$ 75,362	31.1%	$ 222,227	30.5%	$ 210,840	30.4%
Gas	46,260	35.1%	56,096	38.9%	147,036	37.3%	158,156	36.5%
Water	42,618	37.1%	39,291	32.7%	131,140	38.2%	134,661	34.4%
Total gross profit and margin	$ 165,318	34.0%	$ 170,749	33.7%	$ 500,403	34.1%	$ 503,657	33.2%

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2017	2016	% Change	2017	2016	% Change
Segment Operating Expenses	(in thousands)			(in thousands)		
Electricity	$ 59,326	$ 54,910	8%	$ 170,598	$ 159,748	7%
Gas	26,230	48,960	(46)%	89,187	109,345	(18)%
Water	27,781	42,837	(35)%	90,882	105,954	(14)%
Corporate unallocated	14,617	17,632	(17)%	45,508	63,153	(28)%
Total operating expenses	$ 127,954	$ 164,339	(22)%	$ 396,175	$ 438,200	(10)%

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2017		2016		2017		2016	
	Operating Income (Loss)	*Operating Margin*	*Operating Income (Loss)*	*Operating Margin*	*Operating Income (Loss)*	*Operating Margin*	*Operating Income (Loss)*	*Operating Margin*
Segment Operating Income (Loss) and Operating Margin	(in thousands)		(in thousands)		(in thousands)		(in thousands)	
Electricity	$ 17,114	7.1%	$ 20,452	8.4%	$ 51,629	7.1%	$ 51,092	7.4%
Gas	20,030	15.2%	7,136	4.9%	57,849	14.7%	48,811	11.3%
Water	14,837	12.9%	(3,546)	(3.0)%	40,258	11.7%	28,707	7.3%
Corporate unallocated	(14,617)		(17,632)		(45,508)		(63,153)	
Total Company	$ 37,364	7.7%	$ 6,410	1.3%	$ 104,228	7.1%	$ 65,457	4.3%

Electricity

The effects of changes in foreign currency exchange rates and the constant currency changes in certain Electricity segment financial results were as follows:

	Three Months Ended September 30,		Effect of Changes in Foreign Currency Exchange Rates	Constant Currency Change[(1)]	Total Change
	2017	2016			
			(in thousands)		
Electricity Segment					
Revenues	$ 240,142	$ 242,667	$ 2,773	$ (5,298)	$ (2,525)
Gross profit	76,440	75,362	700	378	1,078
Operating expenses	59,326	54,910	753	3,663	4,416

	Nine Months Ended September 30,		Effect of Changes in Foreign Currency Exchange Rates	Constant Currency Change[(1)]	Total Change
	2017	2016			
			(in thousands)		
Electricity Segment					
Revenues	$ 729,225	$ 692,785	$ (953)	$ 37,393	$ 36,440
Gross profit	222,227	210,840	(1,110)	12,497	11,387
Operating expenses	170,598	159,748	(261)	11,111	10,850

(1) Constant currency change is a non-GAAP financial measure and represents the total change between periods excluding the effect of changes in foreign currency exchange rates.

Revenues - Three months ended September 30, 2017 vs. Three months ended September 30, 2016
Revenues decreased $2.5 million, or 1%, for the three months ended September 30, 2017, compared with the same period in 2016. This decrease was primarily driven by decreased product revenue in North America. The reduced revenues are the result of delays caused by our supply chain transitions. This was partially offset by $14.2 million in Comverge revenues during the three months ended September 30, 2017, along with increased product revenues in our Europe, Middle East, and Africa (EMEA) and Asia Pacific regions.

For the three months ended September 30, 2017, one customer represented 20% and another customer represented 14%, of total Electricity segment revenues. For the three months ended September 30, 2016, one customer represented 14% of total revenues.

Revenues - Nine months ended September 30, 2017 vs. Nine months ended September 30, 2016
Revenues increased $36.4 million, or 5%, for the nine months ended September 30, 2017, compared with the same period in 2016. This increase was primarily driven by Comverge, which contributed $19.0 million in revenues, along with increased product revenues in our EMEA and Asia Pacific regions, and improved revenues in North America, excluding Comverge.

For the nine months ended September 30, 2017, one customer represented 20% and another customer represented 10%, of total Electricity segment revenues. For the three months ended September 30, 2016, one customer represented 12% of total Electricity segment revenues.

Gross Margin - Three months ended September 30, 2017 vs. Three months ended September 30, 2016
Gross margin was 31.8% for the three months ended September 30, 2017, compared with 31.1% for the same period in 2016. The 70 basis point increase over the prior year was primarily the result of favorable product mix in 2017.

Gross Margin - Nine months ended September 30, 2017 vs. Nine months ended September 30, 2016
Gross margin was 30.5% for the nine months ended September 30, 2017, compared with 30.4% for the same period in 2016. The 10 basis point increase over the prior year was primarily the result of favorable product mix in 2017.

Operating Expenses - Three months ended September 30, 2017 vs. Three months ended September 30, 2016
Operating expenses increased $4.4 million, or 8%, for the three months ended September 30, 2017, compared with the same period in 2016. The increase was primarily a result of expenses associated with the acquisition and integration of Comverge included

within general and administrative expenses, and the associated increase in amortization of the intangible assets acquired, partially offset by decreased restructuring expense.

Operating Expenses - Nine months ended September 30, 2017 vs. Nine months ended September 30, 2016
Operating expenses increased $10.9 million, or 7%, for the nine months ended September 30, 2017, compared with the same period in 2016. The increase was primarily a result of acquisition and integration expenses related to the acquisition of Comverge.

Gas

The effects of changes in foreign currency exchange rates and the constant currency changes in certain Gas segment financial results were as follows:

	Three Months Ended September 30,		Effect of Changes in Foreign Currency Exchange Rates	Constant Currency Change[1]	Total Change
	2017	2016			
			(in thousands)		
Gas Segment					
Revenues	$ 131,780	$ 144,185	$ 2,402	$ (14,807)	$ (12,405)
Gross profit	46,260	56,096	520	(10,356)	(9,836)
Operating expenses	26,230	48,960	1,299	(24,029)	(22,730)

	Nine Months Ended September 30,		Effect of Changes in Foreign Currency Exchange Rates	Constant Currency Change[1]	Total Change
	2017	2016			
			(in thousands)		
Gas Segment					
Revenues	$ 394,691	$ 433,707	$ (813)	$ (38,203)	$ (39,016)
Gross profit	147,036	158,156	(4)	(11,116)	(11,120)
Operating expenses	89,187	109,345	156	(20,314)	(20,158)

(1) Constant currency change is a non-GAAP financial measure and represents the total change between periods excluding the effect of changes in foreign currency exchange rates.

Revenues - Three months ended September 30, 2017 vs. Three months ended September 30, 2016
Revenues decreased $12.4 million, or 9%, for the three months ended September 30, 2017 compared with the same period in 2016. This was primarily related to the completion of significant projects in the prior period in our North America region and decreases in product revenues in our EMEA region.

No single customer represented more than 10% of the Gas operating segment revenues for the three months ended September 30, 2017 and 2016.

Revenues - Nine months ended September 30, 2017 vs. Nine months ended September 30, 2016
Revenues decreased $39.0 million, or 9%, for the nine months ended September 30, 2017 compared with the same period in 2016. This was primarily related to the completion of significant projects in the prior period in North America and lower product revenue in EMEA, which was partially offset by higher module sales in North America.

No single customer represented more than 10% of the Gas operating segment revenues for the nine months ended September 30, 2017 and 2016.

Gross Margin - Three months ended September 30, 2017 vs. Three months ended September 30, 2016
Gross margin was 35.1% for the three months ended September 30, 2017, compared with 38.9% for the same period in 2016. The 380 basis point decrease was related to lower volume and absorption of overhead costs in 2017.

Gross Margin - Nine months ended September 30, 2017 vs. Nine months ended September 30, 2016
Gross margin was 37.3% for the nine months ended September 30, 2017, compared with 36.5% for the same period in 2016. The 80 basis point increase was related to favorable product mix in the current period, which was partially offset by increased warranty expenses in 2017.

Operating Expenses - Three months ended September 30, 2017 vs. Three months ended September 30, 2016
Operating expenses decreased $22.7 million, or 46%, for the three months ended September 30, 2017, compared with the same period in 2016. This was primarily related to higher restructuring expense in the prior period.

Operating Expenses - Nine months ended September 30, 2017 vs. Nine months ended September 30, 2016
Operating expenses decreased $20.2 million, or 18%, for the nine months ended September 30, 2017, compared with the same period in 2016. This was primarily related to higher restructuring expense in the prior period.

Water

The effects of changes in foreign currency exchange rates and the constant currency changes in certain Water segment financial results were as follows:

	Three Months Ended September 30,		Effect of Changes in Foreign Currency Exchange Rates	Constant Currency Change[(1)]	Total Change
	2017	2016			
			(in thousands)		
Water Segment					
Revenues	$ 114,825	$ 120,007	$ 3,392	$ (8,574)	$ (5,182)
Gross profit	42,618	39,291	1,059	2,268	3,327
Operating expenses	27,781	42,837	1,558	(16,614)	(15,056)

	Nine Months Ended September 30,		Effect of Changes in Foreign Currency Exchange Rates	Constant Currency Change[(1)]	Total Change
	2017	2016			
			(in thousands)		
Water Segment					
Revenues	$ 343,505	$ 390,981	$ (1,391)	$ (46,085)	$ (47,476)
Gross profit	131,140	134,661	(875)	(2,646)	(3,521)
Operating expenses	90,882	105,954	866	(15,938)	(15,072)

(1) Constant currency change is a non-GAAP financial measure and represents the total change between periods excluding the effect of changes in foreign currency exchange rates.

Revenues - Three months ended September 30, 2017 vs. Three months ended September 30, 2016
Revenues decreased $5.2 million, or 4%, for the three months ended September 30, 2017, compared with the same period in 2016. This was primarily due to lower product revenues in North America and the timing of new tenders and customer orders in 2017.

No single customer represented more than 10% of the Water operating segment revenues for the three months ended September 30, 2017 and 2016.

Revenues - Nine months ended September 30, 2017 vs. Nine months ended September 30, 2016
Revenues decreased $47.5 million, or 12%, for the nine months ended September 30, 2017, compared with the same period of 2016. This was primarily due to lower product revenues in North America and EMEA and the timing of new tenders and customer orders in 2017.

No single customer represented more than 10% of the Water operating segment revenues for the nine months ended September 30, 2017 and 2016.

Gross Margin - Three months ended September 30, 2017 vs. Three months ended September 30, 2016
During the third quarter of 2017, gross margin increased to 37.1%, compared with 32.7% in 2016. The 440 basis point increase in gross margin was driven primarily by lower warranty expense in 2017.

Gross Margin - Nine months ended September 30, 2017 vs. Nine months ended September 30, 2016
Gross margin increased to 38.2% for the nine months ended September 30, 2017, compared with 34.4% in 2016. The 380 basis point increase in gross margin was driven by lower warranty expense in 2017, including an insurance recovery in North America associated with warranty expenses previously recognized as a result of our 2015 product replacement notification to customers who had purchased certain communication modules. This insurance recovery increased gross margin by 230 basis points.

Operating Expenses - Three months ended September 30, 2017 vs. Three months ended September 30, 2016
Operating expenses for the three months ended September 30, 2017 decreased by $15.1 million, or 35%, compared with the third quarter of 2016. This was primarily related to higher restructuring expense in the prior period.

Operating Expenses - Nine months ended September 30, 2017 vs. Nine months ended September 30, 2016
Operating expenses for the nine months ended September 30, 2017 decreased by $15.1 million, or 14%, compared with the third quarter of 2016. This was primarily related to higher restructuring expense in the prior period.

Corporate unallocated

Corporate Unallocated Expenses - Three months ended September 30, 2017 vs. Three months ended September 30, 2016
Operating expenses not directly associated with an operating segment are classified as “Corporate unallocated.” These expenses decreased by $3.0 million, or 17%, for the three months ended September 30, 2017 compared with the same period in 2016. The decrease was primarily due to lower professional service fees associated with audit, accounting, and legal services, which more than offset higher acquisition and integration related expenses in 2017.

Corporate Unallocated Expenses - Nine months ended September 30, 2017 vs. Nine months ended September 30, 2016
Corporate unallocated expenses decreased by $17.6 million, or 28%, for the nine months ended September 30, 2017 compared with the same period in 2016. The decrease was primarily due to lower professional service fees associated with audit, accounting, and legal services.

Bookings and Backlog of Orders

Bookings for a reported period represent customer contracts and purchase orders received during the period that have met certain conditions, such as regulatory and/or contractual approval. Total backlog represents committed but undelivered products and services for contracts and purchase orders at period end. Twelve-month backlog represents the portion of total backlog that we estimate will be recognized as revenue over the next 12 months. Backlog is not a complete measure of our future revenues as we also receive significant book-and-ship orders. Bookings and backlog may fluctuate significantly due to the timing of large project awards. In addition, annual or multi-year contracts are subject to rescheduling and cancellation by customers due to the long-term nature of the contracts. Beginning total backlog, plus bookings, minus revenues, will not equal ending total backlog due to miscellaneous contract adjustments, fluctuations in foreign currency exchange rates, and other factors.

Quarter Ended	Quarterly Bookings	Ending Total Backlog (1)	Ending 12-Month Backlog (2)
		(in millions)	
September 30, 2017	$ 343	$ 1,488	$ 847
June 30, 2017	416	1,629	860
March 31, 2017	424	1,605	819
December 31, 2016	653	1,652	761
September 30, 2016	670	1,511	731

(1) Ending total backlog includes $103.0 million and $112.8 million related to Comverge as of September 30, 2017 and June 30, 2017, respectively.
(2) Ending 12-month backlog includes $38.6 million and $43.9 million related to Comverge as of September 30, 2017 and June 30, 2017, respectively.

Information on bookings by our operating segments is as follows:

Quarter Ended	Total Bookings	Electricity	Gas	Water
		(in millions)		
September 30, 2017	$ 343	$ 136	$ 83	$ 124
June 30, 2017	416	210	95	111
March 31, 2017	424	174	125	125
December 31, 2016	653	387	141	125
September 30, 2016	670	372	176	122

Financial Condition

Cash Flow Information:

	Nine Months Ended September 30,	
	2017	2016
	(in thousands)	
Operating activities	$ 114,501	$ 81,881
Investing activities	(132,331)	(32,772)
Financing activities	14,169	(30,696)
Effect of exchange rates on cash and cash equivalents	7,680	1,949
Increase in cash and cash equivalents	$ 4,019	$ 20,362

Cash and cash equivalents was $137.6 million at September 30, 2017, compared with $133.6 million at December 31, 2016.

Operating activities

Cash provided by operating activities during the nine months ended September 30, 2017 was $114.5 million compared with $81.9 million during the same period in 2016. The increase in cash provided by operating activities was primarily due to an improvement in net income adjusted for non-cash items and changes in operating assets and liabilities. Favorable adjustments include a $35.2 million increase in cash provided by accounts receivable primarily due to significant billings on customer projects during nine months ended September 30, 2016, and a $40.8 million reduction in cash used for accounts payable, other current liabilities, and taxes payable primarily due to the timing of payments and a litigation payment made during the nine months ended September 30, 2016. These adjustments were partially offset by a $34.1 million increased use of cash for inventory primarily related to our strategic sourcing projects and related manufacturing and supplier transitions during the nine months ended September 30, 2017, and a $40.0 million restructuring accrual for the 2016 Projects recognized during the nine months ended September 30, 2016.

Investing activities

Cash used by investing activities during the nine months ended September 30, 2017 was $99.6 million higher compared with the same period in 2016. This increased use of cash was primarily related to our acquisition of Comverge during the nine months ended September 30, 2017.

Financing activities

Net cash provided by financing activities during the nine months ended September 30, 2017 was $14.2 million, compared with a net use of cash of $30.7 million for the same period in 2016. The increase in cash provided by financing activities was primarily caused by the utilization of net proceeds from borrowings of $10.2 million for the acquisition of Comverge during the nine months ended September 30, 2017, while net debt repayments were $29.0 million in 2016.

Effect of exchange rates on cash and cash equivalents

The effect of exchange rates on the cash balances of currencies held in foreign denominations for the nine months ended September 30, 2017 was an increase of $7.7 million, compared with an increase of $1.9 million for the same period in 2016.

Free cash flow (Non-GAAP)

To supplement our Consolidated Statements of Cash Flows presented on a GAAP basis, we use the non-GAAP measure of free cash flow to analyze cash flows generated from our operations. The presentation of non-GAAP free cash flow is not meant to be considered in isolation or as an alternative to net income as an indicator of our performance, or as an alternative to cash flows provided by operating activities as a measure of liquidity. We calculate free cash flows, using amounts from our Consolidated Statements of Cash Flows, as follows:

	Nine Months Ended September 30,	
	2017	**2016**
	(in thousands)	
Net cash provided by operating activities	$ 114,501	$ 81,881
Acquisitions of property, plant, and equipment	(33,493)	(30,563)
Free cash flow	$ 81,008	$ 51,318

Free cash flow increased primarily as a result of higher cash provided by operating activities. See the cash flow discussion of operating activities above.

Off-balance sheet arrangements:

We have no off-balance sheet financing agreements or guarantees as defined by Item 303 of Regulation S-K at September 30, 2017 and December 31, 2016 that we believe are reasonably likely to have a current or future effect on our financial condition, results of operations, or cash flows.

Liquidity and Capital Resources:

Our principal sources of liquidity are cash flows from operations, borrowings, and sales of common stock. Cash flows may fluctuate and are sensitive to many factors including changes in working capital and the timing and magnitude of capital expenditures and payments of debt. Working capital, which represents current assets less current liabilities, was $336.0 million at September 30, 2017, compared with $319.4 million at December 31, 2016.

Borrowings

Our credit facility consists of a $225 million U.S. dollar term loan and a multicurrency revolving line of credit (the revolver) with a principal amount of up to $500 million. The revolver also contains a $250 million letter of credit sub-facility and a $50 million swingline sub-facility (available for immediate cash needs at a higher interest rate). At September 30, 2017, $124.5 million was outstanding under the revolver, and $346.4 million was available for additional borrowings or standby letters of credit. At September 30, 2017, $29.1 million was utilized by outstanding standby letters of credit, resulting in $220.9 million available for additional letters of credit.

For further description of the term loan and the revolver under our 2015 credit facility, refer to Item 1: “Financial Statements, Note 6: Debt.”

For a description of our letters of credit and performance bonds, and the amounts available for additional borrowings or letters of credit under our lines of credit, including the revolver that is part of our credit facility, refer to Item 1: “Financial Statements, Note 11: Commitments and Contingencies.”

Acquisitions

On September 17, 2017, we entered into an Agreement and Plan of Merger with Silver Spring to acquire all outstanding shares of Silver Spring for $16.25 per share, in cash, resulting in a preliminary value of approximately $830 million, net of Silver Spring cash on hand. The acquisition is expected to close in late 2017 or early 2018 and is subject to customary closing conditions, including regulatory approval and the approval of Silver Spring's stockholders. We anticipate funding this acquisition with a combination of available cash and new borrowings committed as described below.

On October 3, 2017, Itron entered into an amended and restated debt commitment letter (the “Commitment Letter”), with WF Bank, WF Investments, WF Securities, JPMorgan Chase Bank, N.A., ING Bank, N.V., Dublin Branch, BNP Paribas, Bank of the West and U.S. Bank National Association (collectively, the “Commitment Parties”), which amended and restated the Original Commitment Letter from September 17, 2017.

Pursuant to the Commitment Letter, the Commitment Parties have committed to provide Itron with senior secured credit facilities in an aggregate principal amount of $1.1 billion and an unsecured bridge loan facility in an aggregate principal amount of $350 million to refinance Itron's existing credit facilities, and to finance the acquisition of Silver Spring. The Commitment Parties' commitment to provide the Financing is subject to certain conditions including finalizing the acquisition and the negotiation and execution of a definitive borrowing agreement consistent with the Commitment Letter.

Restructuring

We expect pre-tax restructuring charges associated with the 2016 Projects of approximately $63 million, with expected annualized savings of approximately $40 million upon completion.

As of September 30, 2017, $47.9 million was accrued for the restructuring projects, of which $26.7 million is expected to be paid over the next 12 months. We also expect to recognize approximately $8 million in future restructuring costs, which will result in cash expenditures.

For further details regarding our restructuring activities, refer to Item 1: "Financial Statements, Note 12: Restructuring."

Stock Repurchases

On February 23, 2017, Itron's Board of Directors authorized the Company to repurchase up to $50 million of our common stock over a 12-month period, beginning February 23, 2017. Any repurchases will be made in the open market or in privately negotiated transactions and in accordance with applicable securities laws. Repurchases are subject to the Company's alternative uses of capital as well as financial, market, and industry conditions. We did not repurchase any shares of common stock during the three and nine months ended September 30, 2017.

Other Liquidity Considerations

We have tax credits and net operating loss carryforwards in various jurisdictions that are available to reduce cash taxes. However, utilization of tax credits and net operating losses are limited in certain jurisdictions. Based on current projections, we expect to pay, net of refunds, approximately $7 million in state taxes, $19 million in U.S federal taxes, and $10 million in local and foreign taxes during 2017. For a discussion of our tax provision and unrecognized tax benefits, see Item 1: "Financial Statements, Note 10: Income Taxes."

At September 30, 2017, we are under examination by certain tax authorities for the 2000 to 2015 tax years. The material jurisdictions where we are subject to examination include, among others, the United States, France, Germany, Italy, Brazil, and the United Kingdom. No material changes have occurred to previously disclosed assessments. We believe we have appropriately accrued for the expected outcome of all tax matters and do not currently anticipate that the ultimate resolution of these examinations will have a material adverse effect on our financial condition, future results of operations, or liquidity.

We have not provided for U.S. deferred taxes related to the cash in certain foreign subsidiaries because our investment is considered permanent in duration. As of September 30, 2017, there was $30.6 million of cash and short-term investments held by certain foreign subsidiaries in which we are permanently reinvested for tax purposes. If this cash were repatriated to fund U.S. operations, additional tax costs may be required. Tax is one of the many factors that we consider in the management of global cash. Included in the determination of the tax costs in repatriating foreign cash into the United States are the amount of earnings and profits in a particular jurisdiction, withholding taxes that would be imposed, and available foreign tax credits. Accordingly, the amount of taxes that we would need to accrue and pay to repatriate foreign cash could vary significantly.

In several of our consolidated international subsidiaries, we have joint venture partners, who are minority shareholders. Although these entities are not wholly-owned by Itron, Inc., we consolidate them because we have a greater than 50% ownership interest and/or because we exercise control over the operations. The noncontrolling interest balance in our Consolidated Balance Sheets represents the proportional share of the equity of the joint venture entities, which is attributable to the minority shareholders. At September 30, 2017, $11.1 million of our consolidated cash balance is held in our joint venture entities. As a result, the minority shareholders of these entities have rights to their proportional share of this cash balance, and there may be limitations on our ability to repatriate cash to the United States from these entities.

General Liquidity Overview

We expect to grow through a combination of internal new product development, licensing technology from and to others, distribution agreements, partnering arrangements, and acquisitions of technology or other companies. We expect these activities to be funded with existing cash, cash flow from operations, borrowings, or the sale of common stock or other securities. We believe existing sources of liquidity will be sufficient to fund our existing operations and obligations for the next 12 months and into the foreseeable future, but offer no assurances. Our liquidity could be affected by the stability of the electricity, gas, and water industries, competitive pressures, our dependence on certain key vendors and components, changes in estimated liabilities for product warranties and/or litigation, future business combinations, capital market fluctuations, international risks, and other factors described under “Risk Factors” within Item 1A of Part I of our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, which was filed with the SEC on March 1, 2017, as well as “Quantitative and Qualitative Disclosures About Market Risk” within Item 3 of Part I included in this Quarterly Report on Form 10-Q.

Contingencies

Refer to Item 1: “Financial Statements, Note 11: Commitments and Contingencies.”

Critical Accounting Estimates and Policies

The preparation of our consolidated financial statements in conformity with GAAP requires us to make estimates and assumptions that affect amounts reported in the consolidated financial statements. Changes in these estimates and assumptions are considered reasonably possible and may have a material effect on our consolidated financial statements and thus actual results could differ from the amounts reported and disclosed herein. Our critical accounting policies that require the use of estimates and assumptions were discussed in detail in the 2016 Annual Report on Form 10-K and have not changed materially from that discussion.

Refer to Item 1: “Financial Statements (Unaudited), Note 1: Summary of Significant Accounting Policies” included in this Quarterly Report on Form 10-Q for further disclosures regarding new accounting pronouncements.

Non-GAAP Measures

Our consolidated financial statements are prepared in accordance with GAAP, which we supplement with certain non-GAAP financial information. These non-GAAP measures should not be considered in isolation or as a substitute for the related GAAP measures, and other companies may define such measures differently. We encourage investors to review our financial statements and publicly-filed reports in their entirety and not to rely on any single financial measure. These non-GAAP measures exclude the impact of certain expenses that we do not believe are indicative of our core operating results. We use these non-GAAP financial measures for financial and operational decision making and/or as a means for determining executive compensation. These non-GAAP financial measures facilitate management's internal comparisons to our historical performance as well as comparisons to our competitors' operating results. Our executive compensation plans exclude non-cash charges related to amortization of intangibles and certain discrete cash and non-cash charges such as purchase accounting adjustments, restructuring charges or goodwill impairment charges. We believe that both management and investors benefit from referring to these non-GAAP financial measures in assessing our performance and when planning, forecasting and analyzing future periods. We believe these non-GAAP financial measures are useful to investors because they provide greater transparency with respect to key metrics used by management in its financial and operational decision making and because they are used by our institutional investors and the analyst community to analyze the health of our business.

Non-GAAP operating expenses and non-GAAP operating income – We define non-GAAP operating expenses as operating expenses excluding certain expenses related to the amortization of intangible assets, restructuring, acquisition and integration, and goodwill impairment. We define non-GAAP operating income as operating income excluding the expenses related to the amortization of intangible assets, restructuring, acquisition and integration, and goodwill impairment. Acquisition and integration related expenses include costs which are incurred to affect and integrate business combinations, such as professional fees, certain employee retention and salaries related to integration, severances, contract terminations, travel costs related to knowledge transfer, system conversion costs, and asset impairment charges. We consider these non-GAAP financial measures to be useful metrics for management and investors because they exclude the effect of expenses that are related to acquisitions and restructuring projects. By excluding these expenses, we believe that it is easier for management and investors to compare our financial results over multiple periods and analyze trends in our operations. For example, in certain periods expenses related to amortization of intangible assets may decrease, which would improve GAAP operating margins, yet the improvement in GAAP operating margins due to this lower expense is not necessarily reflective of an improvement in our core business. There are some limitations related to the use of non-GAAP operating expenses and non-GAAP operating income versus operating expenses and operating income calculated in accordance with GAAP. We compensate for these limitations by providing specific information about the GAAP amounts excluded from non-GAAP operating expense and non-GAAP operating income and evaluating non-GAAP operating expense and non-GAAP operating income together with GAAP operating expense and GAAP operating income.

Non-GAAP net income and non-GAAP diluted EPS – We define non-GAAP net income as net income attributable to Itron, Inc. excluding the expenses associated with amortization of intangible assets, restructuring, acquisition and integration, goodwill impairment, amortization of debt placement fees, and the tax effect of excluding these expenses. We define non-GAAP diluted EPS as non-GAAP net income divided by the weighted average shares, on a diluted basis, outstanding during each period. We consider these financial measures to be useful metrics for management and investors for the same reasons that we use non-GAAP operating income. The same limitations described above regarding our use of non-GAAP operating income apply to our use of non-GAAP net income and non-GAAP diluted EPS. We compensate for these limitations by providing specific information regarding the GAAP amounts excluded from these non-GAAP measures and evaluating non-GAAP net income and non-GAAP diluted EPS together with GAAP net income attributable to Itron, Inc. and GAAP diluted EPS.

Adjusted EBITDA – We define adjusted EBITDA as net income (a) minus interest income, (b) plus interest expense, depreciation and amortization, restructuring, acquisition and integration related expense, goodwill impairment and (c) excluding income tax provision or benefit. Management uses adjusted EBITDA as a performance measure for executive compensation. A limitation to using adjusted EBITDA is that it does not represent the total increase or decrease in the cash balance for the period and the measure includes some non-cash items and excludes other non-cash items. Additionally, the items that we exclude in our calculation of adjusted EBITDA may differ from the items that our peer companies exclude when they report their results. We compensate for these limitations by providing a reconciliation of this measure to GAAP net income.

Free cash flow – We define free cash flow as net cash provided by operating activities less cash used for acquisitions of property, plant and equipment. We believe free cash flow provides investors with a relevant measure of liquidity and a useful basis for assessing our ability to fund our operations and repay our debt. The same limitations described above regarding our use of adjusted EBITDA apply to our use of free cash flow. We compensate for these limitations by providing specific information regarding the GAAP amounts and reconciling to free cash flow.

Constant currency – We refer to the impact of foreign currency exchange rate fluctuations in our discussions of financial results, which references the differences between the foreign currency exchange rates used to translate operating results from local currencies into U.S. dollars for financial reporting purposes. We also use the term "constant currency," which represents financial results adjusted to exclude changes in foreign currency exchange rates as compared with the rates in the comparable prior year period. We calculate the constant currency change as the difference between the current period results and the comparable prior period's results restated using current period foreign currency exchange rates.

Reconciliation of GAAP Measures to Non-GAAP Measures

The table below reconciles the non-GAAP financial measures of operating expenses, operating income, net income, diluted EPS, adjusted EBITDA, free cash flow, and operating income by segment with the most directly comparable GAAP financial measures.

TOTAL COMPANY RECONCILIATIONS	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(in thousands, except per share data)			
NON-GAAP OPERATING EXPENSES				
GAAP operating expenses	$ 127,954	$ 164,339	$ 396,175	$ 438,200
Amortization of intangible assets	(5,625)	(4,996)	(15,144)	(19,002)
Restructuring	678	(40,679)	(7,417)	(41,294)
Acquisition and integration related expenses	(7,243)	180	(14,044)	202
Non-GAAP operating expenses	$ 115,764	$ 118,844	$ 359,570	$ 378,106
NON-GAAP OPERATING INCOME				
GAAP operating income	$ 37,364	$ 6,410	$ 104,228	$ 65,457
Amortization of intangible assets	5,625	4,996	15,144	19,002
Restructuring	(678)	40,679	7,417	41,294
Acquisition and integration related expenses	7,243	(180)	14,044	(202)
Non-GAAP operating income	$ 49,554	$ 51,905	$ 140,833	$ 125,551
NON-GAAP NET INCOME & DILUTED EPS				
GAAP net income (loss) attributable to Itron, Inc.	$ 25,576	$ (9,885)	$ 55,518	$ 20,121
Amortization of intangible assets	5,625	4,996	15,144	19,002
Amortization of debt placement fees	242	247	725	742
Restructuring	(678)	40,679	7,417	41,294
Acquisition and integration related expenses	7,243	(180)	14,044	(202)
Income tax effect of non-GAAP adjustments[(1)]	(7,423)	(5,961)	(12,153)	(9,086)
Non-GAAP net income attributable to Itron, Inc.	$ 30,585	$ 29,896	$ 80,695	$ 71,871
Non-GAAP diluted EPS	$ 0.77	$ 0.77	$ 2.05	$ 1.87
Weighted average common shares outstanding - Diluted	39,467	38,651	39,339	38,515
ADJUSTED EBITDA				
GAAP net income (loss) attributable to Itron, Inc.	$ 25,576	$ (9,885)	$ 55,518	$ 20,121
Interest income	(729)	(102)	(1,468)	(594)
Interest expense	2,898	2,691	8,448	8,344
Income tax provision	6,640	13,430	32,247	34,249
Depreciation and amortization	16,532	16,082	46,000	51,563
Restructuring	(678)	40,679	7,417	41,294
Acquisition and integration related expenses	7,243	(180)	14,044	(202)
Adjusted EBITDA	$ 57,482	$ 62,715	$ 162,206	$ 154,775
FREE CASH FLOW				
Net cash provided by operating activities	$ 21,057	$ 30,754	$ 114,501	$ 81,881
Acquisitions of property, plant, and equipment	(11,595)	(10,679)	(33,493)	(30,563)
Free Cash Flow	$ 9,462	$ 20,075	$ 81,008	$ 51,318

(1) The income tax effect of non-GAAP adjustments is calculated using the statutory tax rates for the relevant jurisdictions if no valuation allowance exists. If a valuation allowance exists, there is no tax impact to the non-GAAP adjustment.

SEGMENT RECONCILIATIONS	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(in thousands)			
NON-GAAP OPERATING INCOME - ELECTRICITY				
Electricity - GAAP operating income	$ 17,114	$ 20,452	$ 51,629	$ 51,092
Amortization of intangible assets	3,260	2,183	8,350	10,050
Restructuring	1,227	6,443	1,557	5,411
Acquisition and integration related expenses	3,586	(180)	9,787	(202)
Electricity - Non-GAAP operating income	$ 25,187	$ 28,898	$ 71,323	$ 66,351
NON-GAAP OPERATING INCOME - GAS				
Gas - GAAP operating income	$ 20,030	$ 7,136	$ 57,849	$ 48,811
Amortization of intangible assets	1,375	1,513	3,961	4,888
Restructuring	(706)	20,738	4,717	21,990
Gas - Non-GAAP operating income	$ 20,699	$ 29,387	$ 66,527	$ 75,689
NON-GAAP OPERATING INCOME - WATER				
Water - GAAP operating income (loss)	$ 14,837	$ (3,546)	$ 40,258	$ 28,707
Amortization of intangible assets	990	1,300	2,833	4,064
Restructuring	(1,567)	12,414	446	12,465
Water - Non-GAAP operating income	$ 14,260	$ 10,168	$ 43,537	$ 45,236
NON-GAAP OPERATING INCOME - CORPORATE UNALLOCATED				
Corporate unallocated - GAAP operating loss	$ (14,617)	$ (17,632)	$ (45,508)	$ (63,153)
Restructuring	368	1,084	697	1,428
Acquisition and integration related expenses	3,657	—	4,257	—
Corporate unallocated - Non-GAAP operating loss	$ (10,592)	$ (16,548)	$ (40,554)	$ (61,725)

Item 3: Quantitative and Qualitative Disclosures about Market Risk

In the normal course of business, we are exposed to interest rate and foreign currency exchange rate risks that could impact our financial position and results of operations. As part of our risk management strategy, we may use derivative financial instruments to hedge certain foreign currency and interest rate exposures. Our objective is to offset gains and losses resulting from these exposures with losses and gains on the derivative contracts used to hedge them, therefore reducing the impact of volatility on earnings or protecting the fair values of assets and liabilities. We use derivative contracts only to manage existing underlying exposures. Accordingly, we do not use derivative contracts for trading or speculative purposes.

Interest Rate Risk

We are exposed to interest rate risk through our variable rate debt instruments. In October 2015, we entered into an interest rate swap, which is effective from August 31, 2016 to June 23, 2020, and converts $214 million of our LIBOR-based debt from a floating LIBOR interest rate to a fixed interest rate of 1.42% (excluding the applicable margin on the debt). The notional balance will amortize to maturity at the same rate as required minimum payments on our term loan. At September 30, 2017, our LIBOR-based debt balance was $258.3 million.

In November 2015, we entered into three interest rate cap contracts with a total notional amount of $100 million. The interest rate cap contracts expire on June 23, 2020 and were entered into in order to limit our interest rate exposure on $100 million of our variable LIBOR-based debt up to 2.00%. In the event LIBOR is higher than 2.00%, we will pay interest at the capped rate of 2.00% with respect to the $100 million notional amount of such agreements. The interest rate cap contracts do not include the effect of the applicable margin.

The table below provides information about our financial instruments that are sensitive to changes in interest rates and the scheduled minimum repayment of principal and the weighted average interest rates at September 30, 2017. Weighted average variable rates in the table are based on implied forward rates in the Reuters U.S. dollar yield curve as of September 30, 2017 and our estimated leverage ratio, which determines our additional interest rate margin at September 30, 2017.

	2017	2018	2019	2020	2021	Total	Fair Value
				(in thousands)			
Variable Rate Debt							
Principal: U.S. dollar term loan	$ 4,218	$ 19,688	$ 22,500	$ 151,875	$ —	$ 198,281	$ 196,313
Average interest rate	2.54 %	2.84%	3.11%	3.21%	—%		
Principal: Multicurrency revolving line of credit	$ —	$ —	$ —	$ 124,523	$ —	$ 124,523	$ 123,142
Average interest rate	1.87 %	2.02%	2.14%	2.22%	—%		
Interest rate swap on LIBOR-based debt							
Average interest rate (pay)	1.42 %	1.42%	1.42%	1.42%	—%		
Average interest rate (receive)	1.29 %	1.60%	1.86%	1.97%	—%		
Net/Spread	(0.13)%	0.18%	0.44%	0.55%	—%		

Based on a sensitivity analysis as of September 30, 2017, we estimate that, if market interest rates average one percentage point higher in 2017 than in the table above, our financial results in 2017 would not be materially impacted.

We continually monitor and assess our interest rate risk and may institute additional interest rate swaps or other derivative instruments to manage such risk in the future.

Foreign Currency Exchange Rate Risk

We conduct business in a number of countries. As a result, approximately half of our revenues and operating expenses are denominated in foreign currencies, which expose our account balances to movements in foreign currency exchange rates that could have a material effect on our financial results. Our primary foreign currency exposure relates to non-U.S. dollar denominated transactions in our international subsidiary operations, the most significant of which is the euro. Revenues denominated in functional currencies other than the U.S. dollar were 50% and 47% of total revenues for the three and nine months ended September 30, 2017 compared with 44% and 47% for the same respective periods in 2016.

We are also exposed to foreign exchange risk when we enter into non-functional currency transactions, both intercompany and third party. At each period-end, non-functional currency monetary assets and liabilities are revalued with the change recognized to other income and expense. We enter into monthly foreign exchange forward contracts, which are not designated for hedge accounting, with the intent to reduce earnings volatility associated with currency exposures. As of September 30, 2017, a total of 54 contracts were offsetting our exposures from the euro, Saudi Riyal, Indian Rupee, Chinese Yuan, Indonesian Rupiah, and various other currencies, with notional amounts ranging from $0.1 million to $50.6 million. Based on a sensitivity analysis as of September 30, 2017, we estimate that, if foreign currency exchange rates average ten percentage points higher in 2017 for these financial instruments, our financial results in 2017 would not be materially impacted.

In future periods, we may use additional derivative contracts to protect against foreign currency exchange rate risks.

Item 4: Controls and Procedures

Evaluation of disclosure controls and procedures

An evaluation was performed under the supervision and with the participation of our Company's management, including the Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of the Company's disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e)) under the Securities Exchange Act of 1934 as amended. Based on that evaluation, the Company's management, including the Chief Executive Officer and Chief Financial Officer, concluded that as of September 30, 2017, the Company's disclosure controls and procedures were effective to ensure the information required to be disclosed by an issuer in the reports that it files or submits under the Securities Exchange Act of 1934 is accumulated and communicated to our management, including our principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their control objectives.

Changes in internal controls over financial reporting

In the ordinary course of business, we review our system of internal control over financial reporting and make changes to our applications and processes to improve such controls and increase efficiency, while ensuring that we maintain an effective internal control environment. Changes may include such activities as implementing new, more efficient applications and automating manual processes. We are currently upgrading our global enterprise resource software applications at certain of our locations outside of the United States. We will continue to upgrade our financial applications in stages, and we believe the related changes to processes and internal controls will allow us to be more efficient and further enhance our internal control over financial reporting.

Additionally, we have established a shared services center in Europe, and we are currently transitioning certain finance and accounting activities to the shared services center in a staged approach. The transition to shared services is ongoing, and we believe the related changes to processes and internal control will allow us to be more efficient and further enhance our internal control over financial reporting.

Except for these changes, there have been no other changes in our internal control over financial reporting during the three months ended September 30, 2017 that materially affected, or are reasonably likely to materially affect, internal control over financial reporting.

PART II: OTHER INFORMATION

Item 1: Legal Proceedings

Refer to Item 1: "Financial Statements, Note 11: Commitments and Contingencies."

Item 1A: Risk Factors

There were no material changes to risk factors during the third quarter of 2017 from those previously disclosed in Item 1A: "Risk Factors" of Part I of our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, which was filed with the SEC on March 1, 2017.

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

(a) Not applicable.

(b) Not applicable.

(c) Not applicable.

Item 5: Other Information

(a) No information was required to be disclosed in a report on Form 8-K during the third quarter of 2017 that was not reported.

(b) Not applicable.

Item 6: Exhibits

Exhibit Number	Description of Exhibits
2.1	Agreement and Plan of Merger, dated September 17, 2017, by and among Itron, Inc., Ivory Merger Sub, Inc., and Silver Spring, Inc. (Filed as Exhibit 2.1 to Itron, Inc.'s Current Report on Form 8-K, filed on September 18, 2017)
10.1	Voting Agreement, dated September 17, 2017, by and among Itron, Inc., FC IV Active Advisors, LLC, Foundation Capital, LLC, Foundation Capital IV, L.P., Foundation Capital IV Principals Fund, LLC, and Warren M. Weiss (Filed as Exhibit 10.1 to Itron, Inc.'s Current Report on Form 8-K, filed on September 18, 2017)
10.2	Debt Commitment Letter, dated September 17, by and among Itron, Inc., Wells Fargo Bank, National Association, WF Investment Holdings, LLC and Wells Fargo Securities, LLC (Filed as Exhibit 10.2 to Itron, Inc.'s Current Report on Form 8-K, filed on September 18, 2017)
12.1	Computation of Ratio of Earnings to Fixed Charges. (filed with this report)
31.1	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase.
101.DEF	XBRL Taxonomy Extension Definition Linkbase.
101.LAB	XBRL Taxonomy Extension Label Linkbase.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase.

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.

		ITRON, INC.
November 1, 2017	By:	/s/ JOAN S. HOOPER
Date		**Joan S. Hooper**
		Senior Vice President and Chief Financial Officer

Exhibit 12.1

COMPUTATION OF RATIO OF EARNINGS TO FIXED CHARGES [1]

	Nine Months Ended September 30, 2017	Year Ended December 31, 2016	2015	2014	2013	2012
	(in thousands, except ratios)					
Earnings						
Pre-tax income (loss)	$ 90,122	$ 84,627	$ 37,102	$ (18,265)	$ (153,400)	$ 125,194
Add: dividends received from equity investees	719	335	444	681	707	571
Less: noncontrolling interest income	(2,357)	(3,283)	(2,325)	(1,370)	(2,219)	(1,949)
Less: income (loss) from equity investees	527	(393)	(807)	(270)	(954)	(517)
	89,011	81,286	34,414	(19,224)	(155,866)	123,299
Fixed charges:[2]						
Interest expense, gross[3]	8,448	10,948	12,289	11,602	10,686	10,115
Interest portion of rent expense	3,631	4,958	5,405	6,832	6,651	6,462
a) Fixed charges	12,079	15,906	17,694	18,434	17,337	16,577
b) Earnings for ratio[4]	$ 101,090	$ 97,192	$ 52,108	$ (790)	$ (138,529)	$ 139,876
Ratios:						
Earnings to fixed charges (b/a)[5]	8.4	6.1	2.9	N/A	N/A	8.4
Deficit of earnings to fixed charges	N/A	N/A	N/A	$ (19,224)	$ (155,866)	N/A

(1) We had no preferred stock outstanding for any period presented and accordingly our ratio of earnings to combined fixed charges and preferred stock dividends is the same as our ratio of earnings to fixed charges for all periods presented.

(2) *Fixed charges* consist of interest on indebtedness and amortization of debt issuance costs plus that portion of lease rental expense representative of the interest factor.

(3) *Interest expense, gross*, includes amortization of prepaid debt fees.

(4) *Earnings for ratio* consists of income (loss) from continuing operations before income taxes, plus dividends received from equity method investments, less income from equity investees, less income attributable to noncontrolling interests.

(5) *Earnings to fixed charges ratio* is not calculated for years with a *Deficit of earnings to fixed charges* amount as the ratio is less than 1:1.

Exhibit 31.1

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO SECTION 302 OF THE
SARBANES-OXLEY ACT OF 2002**

I, Philip C. Mezey, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Itron, 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.

ITRON, INC.

By: /s/ PHILIP C. MEZEY

Philip C. Mezey
President and Chief Executive Officer

Date: November 1, 2017

Exhibit 31.2

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO SECTION 302 OF THE
SARBANES-OXLEY ACT OF 2002**

I, Joan S. Hooper, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Itron, 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.

ITRON, INC.

By: /s/ JOAN S. HOOPER

Joan S. Hooper
Senior Vice President and Chief Financial Officer

Date: November 1, 2017

Exhibit 32.1

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

The certification set forth below is being submitted in connection with the Quarterly Report of Itron, Inc. (the Company) on Form 10-Q for the quarterly period ended September 30, 2017 (the Report) for the purpose of complying with Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 and Section 1350 of Chapter 63 of Title 18 of the United States Code.

Philip C. Mezey, the Chief Executive Officer and Joan S. Hooper, the Chief Financial Officer of the Company, each certifies that to the best of his knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the 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.

/s/ PHILIP C. MEZEY

Philip C. Mezey
President and Chief Executive Officer
November 1, 2017

/s/ JOAN S. HOOPER

Joan S. Hooper
Senior Vice President and Chief Financial Officer
November 1, 2017