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 March 31, 2020

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)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, no par value	ITRI	NASDAQ Global Select Market

Securities registered pursuant to Section 12(g) of the Act: None

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

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

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

Large accelerated filer	☒		Accelerated filer	☐
Non-accelerated filer	☐	(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 April 30, 2020, there were outstanding 40,204,114 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 March 31,	
In thousands, except per share data	**2020**	**2019**
Revenues		
Product revenues	$ 528,137	$ 544,850
Service revenues	70,278	69,726
Total revenues	598,415	614,576
Cost of revenues		
Product cost of revenues	384,681	386,102
Service cost of revenues	42,168	41,211
Total cost of revenues	426,849	427,313
Gross profit	171,566	187,263
Operating expenses		
Sales, general and administrative	80,498	92,715
Research and development	53,781	50,490
Amortization of intangible assets	11,165	15,973
Restructuring	(248)	7,262
Total operating expenses	145,196	166,440
Operating income	26,370	20,823
Other income (expense)		
Interest income	553	328
Interest expense	(11,277)	(13,535)
Other income (expense), net	1,066	(1,644)
Total other income (expense)	(9,658)	(14,851)
Income before income taxes	16,712	5,972
Income tax provision	(7,550)	(6,121)
Net income (loss)	9,162	(149)
Net income attributable to noncontrolling interests	478	1,758
Net income (loss) attributable to Itron, Inc.	$ 8,684	$ (1,907)
Net income (loss) per common share - Basic	$ 0.22	$ (0.05)
Net income (loss) per common share - Diluted	$ 0.21	$ (0.05)
Weighted average common shares outstanding - Basic	40,043	39,658
Weighted average common shares outstanding - Diluted	40,474	39,658

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

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

	Three Months Ended March 31,	
In thousands	**2020**	**2019**
Net income (loss)	$ 9,162	$ (149)
Other comprehensive income (loss), net of tax:		
Foreign currency translation adjustments	(25,445)	(2,386)
Net unrealized gain (loss) on derivative instruments, designated as cash flow hedges	(767)	135
Pension benefit obligation adjustment	1,001	471
Total other comprehensive income (loss), net of tax	(25,211)	(1,780)
Total comprehensive income (loss), net of tax	(16,049)	(1,929)
Comprehensive income attributable to noncontrolling interests, net of tax	478	1,758
Comprehensive income (loss) attributable to Itron, Inc.	$ (16,527)	$ (3,687)

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

ITRON, INC.
CONSOLIDATED BALANCE SHEETS
(UNAUDITED)

In thousands	March 31, 2020	December 31, 2019
ASSETS		
Current assets		
Cash and cash equivalents	$ 554,520	$ 149,904
Accounts receivable, net	463,613	472,925
Inventories	221,850	227,896
Other current assets	147,743	146,526
Total current assets	1,387,726	997,251
Property, plant, and equipment, net	225,925	233,228
Deferred tax assets, net	62,064	63,899
Other long-term assets	48,282	44,686
Operating lease right-of-use assets, net	76,612	79,773
Intangible assets, net	170,810	185,097
Goodwill	1,100,328	1,103,907
Total assets	$ 3,071,747	$ 2,707,841
LIABILITIES AND EQUITY		
Current liabilities		
Accounts payable	$ 326,433	$ 328,128
Other current liabilities	64,639	63,785
Wages and benefits payable	97,950	119,220
Taxes payable	16,713	22,193
Current portion of debt	6,719	—
Current portion of warranty	36,409	38,509
Unearned revenue	118,231	99,556
Total current liabilities	667,094	671,391
Long-term debt, net	1,326,556	932,482
Long-term warranty	12,310	14,732
Pension benefit obligation	97,523	98,712
Deferred tax liabilities, net	1,774	1,809
Operating lease liabilities	66,287	68,919
Other long-term obligations	104,708	118,981
Total liabilities	2,276,252	1,907,026
Equity		
Preferred stock, no par value, 10,000 shares authorized, no shares issued or outstanding	—	—
Common stock, no par value, 75,000 shares authorized, 40,176 and 39,941 shares issued and outstanding	1,368,329	1,357,600
Accumulated other comprehensive loss, net	(229,883)	(204,672)
Accumulated deficit	(367,706)	(376,390)
Total Itron, Inc. shareholders' equity	770,740	776,538
Noncontrolling interests	24,755	24,277
Total equity	795,495	800,815
Total liabilities and equity	$ 3,071,747	$ 2,707,841

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

ITRON, INC.
CONSOLIDATED STATEMENTS OF EQUITY
(UNAUDITED)

In thousands	Common Stock Shares	Common Stock Amount	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Itron, Inc. Shareholders' Equity	Noncontrolling Interests	Total Equity
Balances at January 1, 2020	39,941	$ 1,357,600	$ (204,672)	$ (376,390)	$ 776,538	$ 24,277	$ 800,815
Net income				8,684	8,684	478	9,162
Other comprehensive income (loss), net of tax			(25,211)		(25,211)		(25,211)
Distributions to noncontrolling interests						—	—
Net stock issues and repurchases	235	2,247			2,247		2,247
Stock-based compensation expense		8,482			8,482		8,482
Balances at March 31, 2020	40,176	$ 1,368,329	$ (229,883)	$ (367,706)	$ 770,740	$ 24,755	$ 795,495

In thousands	Common Stock Shares	Common Stock Amount	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Itron, Inc. Shareholders' Equity	Noncontrolling Interests	Total Equity
Balances at January 1, 2019	39,498	$ 1,334,364	$ (196,305)	$ (425,396)	$ 712,663	$ 21,385	$ 734,048
Net income (loss)				(1,907)	(1,907)	1,758	(149)
Other comprehensive income (loss), net of tax			(1,780)		(1,780)		(1,780)
Distributions to noncontrolling interests						(517)	(517)
Net stock issues and repurchases	360	1,195			1,195		1,195
Stock-based compensation expense		7,048			7,048		7,048
Stock repurchased	(165)	(7,814)			(7,814)		(7,814)
Balances at March 31, 2019	39,693	$ 1,334,793	$ (198,085)	$ (427,303)	$ 709,405	$ 22,626	$ 732,031

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

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

	Three Months Ended March 31,	
In thousands	2020	2019
Operating activities		
Net income (loss)	$ 9,162	$ (149)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Depreciation and amortization	24,031	28,427
Non-cash operating lease expense	5,496	4,910
Stock-based compensation	8,482	7,205
Amortization of prepaid debt fees	1,007	1,200
Deferred taxes, net	4,062	(430)
Restructuring, non-cash	(955)	96
Other adjustments, net	(874)	44
Changes in operating assets and liabilities, net of acquisitions		
Accounts receivable	1,185	(37,977)
Inventories	(543)	(1,659)
Other current assets	(4,526)	(11,030)
Other long-term assets	(6,501)	334
Accounts payable, other current liabilities, and taxes payable	135	12,312
Wages and benefits payable	(19,977)	8,465
Unearned revenue	17,395	8,235
Warranty	(4,250)	(2,569)
Other operating, net	(14,435)	7,510
Net cash provided by operating activities	18,894	24,924
Investing activities		
Acquisitions of property, plant, and equipment	(12,602)	(11,415)
Other investing, net	3,345	299
Net cash used in investing activities	(9,257)	(11,116)
Financing activities		
Proceeds from borrowings	400,000	30,000
Payments on debt	—	(44,063)
Issuance of common stock	2,911	1,758
Repurchase of common stock	(664)	(8,534)
Prepaid debt fees	(175)	(175)
Other financing, net	(335)	(2,229)
Net cash provided by (used in) financing activities	401,737	(23,243)
Effect of foreign exchange rate changes on cash, cash equivalents, and restricted cash	(6,758)	72
Increase (decrease) in cash, cash equivalents, and restricted cash	404,616	(9,363)
Cash, cash equivalents, and restricted cash at beginning of period	149,904	122,328
Cash, cash equivalents, and restricted cash at end of period	$ 554,520	$ 112,965
Supplemental disclosure of cash flow information:		
Cash paid (received) during the period for:		
Income taxes, net	$ (5,370)	$ 3,241
Interest	14,804	16,628

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

ITRON, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
March 31, 2020
(UNAUDITED)

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

Note 1: Summary of Significant Accounting Policies

Financial Statement Preparation

The 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, the Consolidated Statements of Comprehensive Income (Loss), Consolidated Statements of Equity and Consolidated Statements of Cash Flows for the three months ended March 31, 2020 and 2019, and the Consolidated Balance Sheets as of March 31, 2020 and December 31, 2019, 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 months ended March 31, 2020 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 partially or completely omitted pursuant to the rules and regulations of the U.S. Securities and Exchange Commission (SEC) regarding interim results. These consolidated financial statements should be read in conjunction with the consolidated financial statements and the notes thereto for the fiscal year ended December 31, 2019 filed with the SEC in our Annual Report on Form 10-K on February 27, 2020 (2019 Annual Report). There have been no significant changes in financial statement preparation or significant accounting policies since December 31, 2019.

Risks and Uncertainties

The COVID-19 pandemic has had global economic impacts including disrupting global supply chains and creating market volatility. The extent of the recent pandemic and its ongoing impact on our operations is volatile, but is being monitored closely by management. We expect that certain of our customers’ projects and deployments may shift to later in 2020 or possibly 2021. At this time, we have not identified any significant decrease in long-term customer demand for our products and services. Nonetheless, a prolonged pandemic could adversely impact the efficiency and effectiveness of our organization, further impact our global supply chain network, result in delays or decreases in customer collections, reduce demand for our products and services, and inhibit our sales efforts, any of which could materially impact our revenues, results of operations, cash flows and financial condition.

Restricted Cash and Cash Equivalents

Cash and cash equivalents that are contractually restricted from operating use are classified as restricted cash and cash equivalents.

The following table provides a reconciliation of cash, cash equivalents, and restricted cash reported within the Consolidated Balance Sheets that sum to the total of the same such amounts shown in the Consolidated Statements of Cash Flows:

In thousands	March 31, 2020	December 31, 2019	March 31, 2019
Cash and cash equivalents	$ 554,520	$ 149,904	$ 110,828
Current restricted cash included in other current assets	—	—	51
Long-term restricted cash	—	—	2,086
Total cash, cash equivalents, and restricted cash	$ 554,520	$ 149,904	$ 112,965

Accounts Receivable, net

Accounts receivable are recognized for invoices issued to customers in accordance with our contractual arrangements. Interest and late payment fees are minimal. Unbilled receivables are recognized when revenues are recognized upon product shipment or service delivery and invoicing occurs at a later date. We recognize an allowance for doubtful accounts representing our estimate of the expected losses in accounts receivable at the date of the balance sheet based on our historical experience of bad debts, our specific review of outstanding receivables, and our review of current and expected economic conditions. Accounts receivable are written-off against the allowance when we believe an account, or a portion thereof, is no longer collectible.

Recently Adopted Accounting Standards

In June 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments.* Subsequent to 2016-13 the FASB also issued codification improvements and transition relief in ASU 2019-04, ASU 2019-05, ASU 2019-11, ASU 2020-02, and ASU 2020-03, hereafter collectively referred to as Accounting Standards Codification (ASC) 326. ASC 326 replaces the incurred loss impairment methodology in previous GAAP with a methodology based on expected credit losses, which results in losses being recognized earlier. The estimate of expected credit losses uses a broader range of reasonable and supportable information. We adopted ASC 326 on January 1, 2020, and the impacts on our consolidated financial position, results of operations, and cash flows, were immaterial.

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*, which amended the disclosure requirements under ASC 820. This update clarifies and unifies the disclosure of Level 3 fair value instruments. We adopted this standard on January 1, 2020, and it did not materially impact our consolidated financial statements.

In August 2018, the FASB issued ASU 2018-14, *Compensation—Retirement Benefits—Defined Benefit Plans—General (Subtopic 715-20): Disclosure Framework—Changes to the Disclosure Requirements for Defined Benefit Plans*, which amends the disclosure requirements under ASC 715-20. This update clarifies annual disclosures for Defined Benefit Plans. We adopted this standard on January 1, 2020, and it did not materially impact our consolidated financial statements.

Recent Accounting Standards Not Yet Adopted

In December 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*, which modifies certain provisions of ASC 740, in an effort to reduce the complexity of accounting for income taxes. ASU 2019-12 is effective for us beginning with our interim financial reports for the first quarter of 2021. We are currently evaluating the effects and do not believe this standard will have a material impact on our consolidated financial position, results of operations, or cash flows.

In March 2020, the FASB issued ASU 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting*, which provides optional expedients and exceptions for applying GAAP to contracts, hedging relationships, and other transactions affected by reference rate reform. ASU 2020-04 applies to contracts that reference LIBOR or another reference rate expected to be terminated because of reference rate reform. An entity may elect certain optional expedients for hedging relationships that exist as of December 31, 2022, and maintain those optional expedients through the end of the hedging relationship. ASU 2020-04 can be adopted as of March 12, 2020. We do not currently have any contracts that have been changed to a new reference rate, but we will continue to evaluate our contracts and the effects of this standard on our consolidated financial position, results of operations, and cash flows prior to adoption.

Note 2: Earnings Per Share

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

	Three Months Ended March 31,	
In thousands, except per share data	**2020**	**2019**
Net income (loss) available to common shareholders	$ 8,684	$ (1,907)
Weighted average common shares outstanding - Basic	40,043	39,658
Dilutive effect of stock-based awards	431	—
Weighted average common shares outstanding - Diluted	40,474	39,658
Net income (loss) per common share - Basic	$ 0.22	$ (0.05)
Net income (loss) per common share - Diluted	$ 0.21	$ (0.05)

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 our 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 0.3 million and 1.0 million stock-based awards were excluded from the calculation of diluted EPS for the three months ended March 31, 2020 and 2019 because they were anti-dilutive. These stock-based awards could be dilutive in future periods.

Note 3: Certain Balance Sheet Components

A summary of accounts receivable from contracts with customers is as follows:

Accounts receivable, net

In thousands	March 31, 2020	December 31, 2019
Trade receivables (net of allowance of $3,046 and $3,064)	$ 398,025	$ 415,887
Unbilled receivables	65,588	57,038
Total accounts receivable, net	$ 463,613	$ 472,925

Allowance for doubtful accounts activity	Three Months Ended March 31,	
In thousands	2020	2019
Beginning balance	$ 3,064	$ 6,331
Provision for (release of) doubtful accounts, net	510	(2,103)
Accounts written-off	(415)	(192)
Effect of change in exchange rates	(113)	10
Ending balance	$ 3,046	$ 4,046

Inventories

In thousands	March 31, 2020	December 31, 2019
Raw materials	$ 133,285	$ 120,861
Work in process	10,473	11,105
Finished goods	78,092	95,930
Total inventories	$ 221,850	$ 227,896

Property, plant, and equipment, net

In thousands	March 31, 2020	December 31, 2019
Machinery and equipment	$ 311,771	$ 323,003
Computers and software	111,501	109,924
Buildings, furniture, and improvements	150,847	149,471
Land	14,538	14,988
Construction in progress, including purchased equipment	45,596	54,490
Total cost	634,253	651,876
Accumulated depreciation	(408,328)	(418,648)
Property, plant, and equipment, net	$ 225,925	$ 233,228

Depreciation expense	Three Months Ended March 31,	
In thousands	2020	2019
Depreciation expense	$ 12,866	$ 12,384

Note 4: Intangible Assets and Liabilities

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

	March 31, 2020			December 31, 2019		
In thousands	Gross	Accumulated (Amortization) Accretion	Net	Gross	Accumulated (Amortization) Accretion	Net
Intangible Assets						
Core-developed technology	$ 501,124	$ (457,310)	$ 43,814	$ 507,669	$ (458,109)	$ 49,560
Customer contracts and relationships	372,983	(251,122)	121,861	381,288	(251,509)	129,779
Trademarks and trade names	77,613	(73,083)	4,530	78,837	(73,732)	5,105
Other	12,019	(11,414)	605	12,020	(11,367)	653
Total intangible assets	$ 963,739	$ (792,929)	$ 170,810	$ 979,814	$ (794,717)	$ 185,097
Intangible Liabilities						
Customer contracts and relationships	$ (23,900)	$ 15,458	$ (8,442)	$ (23,900)	$ 13,450	$ (10,450)

A summary of intangible assets and liabilities activity is as follows:

	Three Months Ended March 31,	
In thousands	2020	2019
Beginning balance, intangible assets, gross	$ 979,814	$ 981,160
Effect of change in exchange rates	(16,075)	2,359
Ending balance, intangible assets, gross	$ 963,739	$ 983,519
Beginning balance, intangible liabilities, gross	$ (23,900)	$ (23,900)
Effect of change in exchange rates	—	—
Ending balance, intangible liabilities, gross	$ (23,900)	$ (23,900)

On January 5, 2018, we completed our acquisition of Silver Spring Networks, Inc. (SSNI) and acquired intangible assets including in-process research and development (IPR&D), which were completed during 2019 and are now included within core-developed technology. Assumed intangible liabilities reflect the present value of the projected cash outflows for an existing contract where remaining costs are expected to exceed projected revenues.

Estimated future annual amortization (accretion) is as follows:

Year Ending December 31,	Amortization	Accretion	Estimated Annual Amortization, net
In thousands			
2020 (amount remaining at March 31, 2020)	$ 39,618	$ (6,020)	$ 33,598
2021	37,572	(1,963)	35,609
2022	27,212	(459)	26,753
2023	19,674	—	19,674
2024	15,523	—	15,523
Thereafter	31,211	—	31,211
Total intangible assets subject to amortization (accretion)	$ 170,810	$ (8,442)	$ 162,368

Note 5: Goodwill

The following table reflects changes in the carrying amount of goodwill for the three months ended March 31, 2020:

In thousands	Device Solutions	Networked Solutions	Outcomes	Total Company
Goodwill balance at January 1, 2020	$ 54,930	$ 908,088	$ 140,889	$ 1,103,907
Effect of change in exchange rates	(177)	(2,944)	(458)	(3,579)
Goodwill balance at March 31, 2020	$ 54,753	$ 905,144	$ 140,431	$ 1,100,328

Note 6: Debt

The components of our borrowings were as follows:

In thousands	March 31, 2020	December 31, 2019
Credit facility		
USD denominated term loan	$ 550,156	$ 550,156
Multicurrency revolving line of credit	400,000	—
Senior notes	400,000	400,000
Total debt	1,350,156	950,156
Less: current portion of debt	6,719	—
Less: unamortized prepaid debt fees - term loan	3,446	3,661
Less: unamortized prepaid debt fees - senior notes	13,435	14,013
Long-term debt, net	$ 1,326,556	$ 932,482

Credit Facility

On October 18, 2019, we amended our credit facility that was initially entered on January 5, 2018 (together with the amendment, the "2018 credit facility"). The 2018 credit facility provides for committed credit facilities in the amount of $1.2 billion U.S. dollars. The 2018 credit facility consists of a $650 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 $300 million standby letter of credit sub-facility and a $50 million swingline sub-facility. The October 18, 2019 amendment extended the maturity date to October 18, 2024 and re-amortized the term loan based on the new balance as of the amendment date. The amendment also modified the required interest payments and made it based on total net leverage instead of total leverage. 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 0.15% to 0.25% and drawn amounts are subject to a margin ranging from 1.00% to 1.75%. Both the term loan and the revolver can be repaid without penalty. Amounts repaid on the term loan may not be reborrowed, and amounts borrowed under the revolver may be repaid and reborrowed until the revolver's maturity, at which time all outstanding loans together with all accrued and unpaid interest must be repaid.

The 2018 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 2018 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. This includes 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 first-tier foreign subsidiaries. In addition, the obligations of any foreign subsidiary who is a foreign borrower, as defined by the 2018 credit facility, are guaranteed by the foreign subsidiary and by its direct and indirect foreign parents. The 2018 credit facility includes debt covenants, which contain certain financial thresholds and place certain restrictions on the incurrence of debt, investments, and the issuance of dividends. We were in compliance with the debt covenants under the 2018 credit facility at March 31, 2020.

Under the 2018 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 net 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 (subject to a 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 0.50%, or (iii) one-month LIBOR plus 1.00%. At March 31, 2020, the interest rate for both the term loan and revolver was 2.49%, which includes the LIBOR rate plus a margin of 1.50%.

On March 25, 2020, we drew $400 million in U.S. dollars under the revolving line of credit within the 2018 credit facility to increase our cash position and preserve future financial flexibility. At March 31, 2020, $400 million was outstanding under the revolver, and $40.9 million was utilized by outstanding standby letters of credit, resulting in $59.1 million available for additional borrowings or standby letters of credit. At March 31, 2020, no amounts were outstanding under the swingline sub-facility.

Senior Notes

On December 22, 2017 and January 19, 2018, we issued $300 million and $100 million of aggregate principal amount of 5.00% senior notes maturing January 15, 2026 (Senior Notes). The proceeds were used to refinance existing indebtedness related to the acquisition of SSNI, pay related fees and expenses, and for general corporate purposes. Interest on the Senior Notes is payable semi-annually in arrears on January 15 and July 15. The Senior Notes are fully and unconditionally guaranteed, jointly and severally, on a senior unsecured basis by each of our subsidiaries that guarantee the senior credit facilities.

Prior to maturity, we may redeem some or all of the Senior Notes, together with accrued and unpaid interest, if any, plus a "make-whole" premium. On or after January 15, 2021, we may redeem some or all of the Senior Notes at any time at declining redemption prices equal to 102.50% beginning on January 15, 2021, 101.25% beginning on January 15, 2022 and 100.00% beginning on January 15, 2023 and thereafter to the applicable redemption date. In addition, before January 15, 2021, and subject to certain conditions, we may redeem up to 35% of the aggregate principal amount of Senior Notes with the net proceeds of certain equity offerings at 105.00% thereof to the date of redemption; provided that (i) at least 65% of the aggregate principal amount of Senior Notes remains outstanding after such redemption and (ii) the redemption occurs within 60 days of the closing of any such equity offering.

Debt Maturities

The amount of required minimum principal payments on our long-term debt in aggregate over the next five years is as follows:

Year Ending December 31,	**Minimum Payments**
In thousands	
2020 (amount remaining at March 31, 2020)	$ —
2021	32,422
2022	44,063
2023	44,063
2024	829,608
Thereafter	400,000
Total minimum payments on debt	$ 1,350,156

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: Shareholders' Equity" and "Note 14: Fair Values of Financial Instruments" 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 (and are classified as "Level 2" in the fair value hierarchy). 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:

Derivative Assets	Balance Sheet Location	Fair Value March 31, 2020	Fair Value December 31, 2019
		In thousands	
Derivatives designated as hedging instruments under ASC 815-20			
Interest rate swap contract	Other current assets	$ —	$ 174
Interest rate cap contracts	Other current assets	—	1
Foreign exchange options	Other current assets	1,099	—
Cross currency swap contract	Other current assets	473	1,156
Cross currency swap contract	Other long-term assets	4,481	2,870
Derivatives not designated as hedging instruments under ASC 815-20			
Foreign exchange forward contracts	Other current assets	213	96
Total asset derivatives		$ 6,266	$ 4,297
Derivative Liabilities			
Derivatives designated as hedging instruments under ASC 815-20			
Interest rate swap contracts	Other current liabilities	$ 789	$ —
Interest rate swap contracts	Other long-term obligations	720	—
Derivatives not designated as hedging instruments under ASC 815-20			
Foreign exchange forward contracts	Other current liabilities	577	162
Total liability derivatives		$ 2,086	$ 162

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

In thousands	2020	2019
Net unrealized loss on hedging instruments at January 1,	$ (15,103)	$ (13,179)
Unrealized gain (loss) on hedging instruments	282	211
Realized (gains) losses reclassified into net income (loss)	(1,049)	(76)
Net unrealized loss on hedging instruments at March 31,	$ (15,870)	$ (13,044)

Reclassification of amounts related to hedging instruments are included in interest expense in the Consolidated Statements of Operations for the periods ended March 31, 2020 and 2019. Included in the net unrealized gain (loss) on hedging instruments at March 31, 2020 and 2019 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 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		
In thousands		Derivative Financial Instruments	Cash Collateral Received	Net Amount
March 31, 2020	$ 6,266	$ (716)	$ —	$ 5,550
December 31, 2019	4,297	(56)	—	4,241

Offsetting of Derivative Liabilities	Gross Amounts of Recognized Liabilities Presented in the Consolidated Balance Sheets	Gross Amounts Not Offset in the Consolidated Balance Sheets		
In thousands		Derivative Financial Instruments	Cash Collateral Pledged	Net Amount
March 31, 2020	$ 2,086	$ (716)	$ —	$ 1,370
December 31, 2019	162	(56)	—	106

Our derivative assets and liabilities subject to netting arrangements consist of foreign exchange forwards and options and interest rate contracts with eight counterparties at March 31, 2020 and five counterparties at December 31, 2019. No derivative asset or liability balance with any of our counterparties was individually significant at March 31, 2020 or December 31, 2019. 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, and we have not 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 interest rate caps and swaps to reduce the variability of cash flows from increases in the LIBOR based borrowing rates on our floating rate credit facility. These instruments do not protect us from changes to the applicable margin under our credit facility. At March 31, 2020, our LIBOR-based debt balance was $950.2 million.

In October 2015, we entered into one 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. In March 2020, we entered into an interest rate swap, which is effective from June 30, 2020 to June 30, 2023, and converts $240 million of our LIBOR-based debt from a floating LIBOR interest rate to a fixed interest rate of 0.617% (excluding the applicable margin). The notional balance will amortize to maturity at the same rate of originally required amortizations on our term loan. Changes in the fair value of the interest rate swaps are recognized as a component of other comprehensive income (OCI) and are recognized in earnings when the hedged item affects earnings. The amounts paid or received on the hedges are recognized as an adjustment to interest expense along with the earnings effect of the hedged item. The amount of net losses expected to be reclassified into earnings in the next 12 months is $0.8 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. Changes in the fair value of these instruments will be recognized as a component of OCI and will be recognized in earnings when the hedged item affects earnings. The amounts received on the hedge are recognized as an adjustment to interest expense along with the earnings effect of the hedged item. The amount of net losses expected to be reclassified into earnings for all interest rate cap contracts in the next 12 months is $0.2 million.

In April 2018, we entered into one cross-currency swap, which converts $56.0 million of floating LIBOR-based U.S. dollar denominated debt into 1.38% fixed rate euro denominated debt. This cross-currency swap matures on April 30, 2021 and mitigates the risk associated with fluctuations in currency rates impacting cash flows related to U.S. dollar denominated debt in a euro functional currency entity. Changes in the fair value of the cross-currency 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 are recognized as an adjustment to interest expense along with the earnings effect of the hedged item. The amount of net gains expected to be reclassified into earnings in the next 12 months is $0.5 million.

As a result of our forecasted inventory purchases in a non-functional currency, we are exposed to foreign exchange risk. We hedge portions of these purchases. During February 2020, we entered into foreign exchange option contracts for a total notional amount of $96 million at a cost of $1.2 million. The contracts will mature ratably through the year with final maturity in October 2020. Changes in the fair value of the option contracts are recognized as a component of OCI and will be recognized in product cost of revenues when the hedged item affects earnings.

The before-tax effects of our accounting for derivative instruments designated as hedges on AOCI were as follows:

Derivatives in ASC 815-20 Cash Flow Hedging Relationships	Amount of Gain (Loss) Recognized in OCI on Derivative		Gain (Loss) Reclassified from AOCI into Income		
			Location	Amount	
In thousands	2020	2019		2020	2019
Three Months Ended March 31,					
Interest rate swap contract	$ (1,579)	$ (318)	Interest expense	$ 104	$ 466
Interest rate cap contracts	393	156	Interest expense	197	292
Foreign exchange options	(89)	307	Product cost of revenues	—	—
Cross currency swap contract	1,255	2,008	Interest expense	305	494
Cross currency swap contract	—	—	Other income/(expense), net	517	892

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 within 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 March 31, 2020, a total of 53 contracts were offsetting our exposures from the euro, Indonesian rupiah, Chinese yuan, Canadian dollar, Indian rupee and various other currencies, with notional amounts ranging from $113,000 to $26.4 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)	
In thousands		2020	2019
Three Months Ended March 31,			
Foreign exchange forward contracts	Other income (expense), net	$ 1,493	$ (790)

We will continue to monitor and assess our interest rate and foreign exchange risk and may institute additional derivative instruments to manage such risk in the future.

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 certain of our international employees, primarily in Germany, France, Indonesia, India, and Italy. The defined benefit obligation is calculated annually by using the projected unit credit method. The measurement date for the pension plans was December 31, 2019.

Amounts recognized on the Consolidated Balance Sheets consist of:

In thousands	March 31, 2020	December 31, 2019
Assets		
Plan assets in other long-term assets	$ 36	$ 44
Liabilities		
Current portion of pension benefit obligation in wages and benefits payable	3,033	2,885
Long-term portion of pension benefit obligation	97,523	98,712
Pension benefit obligation, net	$ 100,520	$ 101,553

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 cost for our plans include the following components:

In thousands	Three Months Ended March 31, 2020	2019
Service cost	$ 976	$ 1,079
Interest cost	473	582
Expected return on plan assets	(146)	(156)
Amortization of prior service costs	16	17
Amortization of actuarial net loss	455	345
Net periodic benefit cost	$ 1,774	$ 1,867

The components of net periodic benefit cost, other than the service cost component, are included in total other income (expense) on the Consolidated Statements of Operations.

Note 9: Stock-Based Compensation

We grant stock-based compensation awards under the Second Amended and Restated 2010 Stock Incentive Plan (Stock Incentive Plan), including stock options, restricted stock units, phantom stock, and unrestricted stock units. In the Stock Incentive Plan, we have 12,623,538 shares of common stock reserved and authorized for issuance subject to stock splits, dividends, and other similar events. At March 31, 2020, 5,611,169 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 222,922 shares of common stock were available for future issuance at March 31, 2020.

All other forms of stock grants, including, Unrestricted stock, ESPP, and Phantom stock units were not significant for the three months ended March 31, 2020 and 2019.

Stock-Based Compensation Expense

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

In thousands	Three Months Ended March 31, 2020	2019
Stock options	$ 467	$ 581
Restricted stock units	7,809	6,467
Unrestricted stock awards	206	157
Phantom stock units	433	918
Total stock-based compensation	$ 8,915	$ 8,123
Related tax benefit	$ 1,767	$ 1,443

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, 2019	895	$ 47.93	6.2	$ 4,806	
Exercised	(20)	44.99		211	
Forfeited	(7)	67.53			
Outstanding, March 31, 2019	868	$ 47.83	6.0	$ 4,402	
Outstanding, January 1, 2020	458	$ 56.38	7.0	$ 12,641	
Granted	73	87.27			$ 26.72
Exercised	(40)	54.03		934	
Outstanding, March 31, 2020	491	$ 61.13	7.5	$ 3,106	
Exercisable, March 31, 2020	295	$ 49.74	6.3	$ 3,096	

At March 31, 2020, total unrecognized stock-based compensation expense related to nonvested stock options was $4.0 million, which is expected to be recognized over a weighted average period of approximately 2.4 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 March 31,	
	2020	2019
Expected volatility	31.0 %	— %
Risk-free interest rate	1.4 %	— %
Expected term (years)	5.3	N/A

There were no employee stock options granted for the three months ended March 31, 2019.

Restricted Stock Units

The following table summarizes restricted stock unit activity:

In thousands, except fair value	Number of Restricted Stock Units	Weighted Average Grant Date Fair Value	Aggregate Intrinsic Value
Outstanding, January 1, 2019	817		
Granted	107	$ 56.04	
Released [(1)]	(316)		$ 19,074
Forfeited	(17)		
Outstanding, March 31, 2019	591		
Outstanding, January 1, 2020	684	$ 64.38	
Granted	182	87.17	
Released [(1)]	(192)	65.08	$ 12,454
Forfeited	(7)	67.42	
Outstanding, March 31, 2020	667	70.55	
Vested but not released, March 31, 2020	8		$ 473

[(1)] Shares released is presented gross of shares netted for employee payroll tax obligations.

At March 31, 2020, total unrecognized compensation expense on restricted stock units was $44.7 million, which is expected to be recognized over a weighted average period of approximately 2.1 years.

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

	Three Months Ended March 31,	
	2020	2019
Expected volatility	37.6 %	31.3 %
Risk-free interest rate	1.5 %	2.5 %
Expected term (years)	1.8	1.6
Weighted average fair value	$ 94.28	$ 60.91

Note 10: Income Taxes

We determine the interim tax benefit (provision) by applying an estimate of the annual effective tax rate to the year-to-date pretax book income (loss) and adjusting for discrete items during the reporting period, if any. Tax jurisdictions with losses for which tax benefits cannot be realized are excluded.

Our tax rate for the three months ended March 31, 2020 of 45%, differed from the federal statutory rate of 21% primarily due to losses in jurisdictions for which no benefit is recognized because of valuation allowances on deferred tax assets as well as the forecasted mix of earnings in domestic and international jurisdictions, a benefit related to excess stock-based compensation, and uncertain tax positions.

Our tax rate for the three months ended March 31, 2019 of 102% differed from the federal statutory rate of 21% primarily due to losses in jurisdictions for which no benefit is recognized because of valuation allowances on deferred tax assets as well as the forecasted mix of earnings in domestic and international jurisdictions, a benefit related to excess stock-based compensation, and uncertain tax positions.

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 amounts recognized were as follows:

	Three Months Ended March 31,	
In thousands	2020	2019
Net interest and penalties expense	$ 308	$ 301

Accrued interest and penalties recognized were as follows:

In thousands	March 31, 2020	December 31, 2019
Accrued interest	$ 3,050	$ 2,849
Accrued penalties	1,692	1,681

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:

In thousands	March 31, 2020	December 31, 2019
Unrecognized tax benefits related to uncertain tax positions	$ 121,729	$ 121,715
The amount of unrecognized tax benefits that, if recognized, would affect our effective tax rate	120,436	120,410

At March 31, 2020, we are under examination by certain tax authorities. 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 cash flows.

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.

We file income tax returns in various jurisdictions. The material jurisdictions where we are subject to examination include, among others, the United States, France, Germany, Italy, Brazil, and the United Kingdom.

On March 27, 2020, the U.S. Federal government passed the Coronavirus Aid, Relief, and Economic Security (CARES) Act to provide economic relief from COVID-19. The CARES Act contains significant business tax provisions, including modifications to the rules allowing for enhanced deductibility of net operating losses (NOLs) and interest expense as well as accelerated depreciation treatment for qualified improvement property (QIP). While the Company continues to evaluate the impact of the CARES Act, it does not currently believe it will have a material impact on the Company's consolidated financial statements or related disclosures.

The CARES Act also provides employer payroll tax credits for wages paid to employees who are unable to work during the COVID-19 outbreak and options to defer payroll tax payments. The Company does plan to defer remittances of payroll and other taxes into the future as provided for under the Act, and may assess in subsequent quarters the impact and availability of payroll tax credits from the U.S. and similar programs provided for by foreign governments, as applicable.

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 our 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 bonds were as follows:

In thousands	March 31, 2020	December 31, 2019
Credit facility		
Multicurrency revolving line of credit	$ 500,000	$ 500,000
Long-term borrowings	(400,000)	—
Standby LOCs issued and outstanding	(40,934)	(41,072)
Net available for additional borrowings under the multi-currency revolving line of credit	$ 59,066	$ 458,928
Net available for additional standby LOCs under sub-facility	$ 59,066	$ 258,928
Unsecured multicurrency revolving lines of credit with various financial institutions		
Multicurrency revolving lines of credit	$ 102,494	$ 107,206
Standby LOCs issued and outstanding	(24,023)	(25,100)
Short-term borrowings	(137)	(173)
Net available for additional borrowings and LOCs	$ 78,334	$ 81,933
Unsecured surety bonds in force	$ 155,962	$ 136,004

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, as of May 4, 2020, 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 (a) the customer promptly notifies us in writing of the claim and (b) 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 would be 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 March 31,	
In thousands	2020	2019
Beginning balance	$ 53,242	$ 60,443
New product warranties	1,070	1,718
Other adjustments and expirations, net	693	1,861
Claims activity	(5,940)	(6,083)
Effect of change in exchange rates	(346)	(407)
Ending balance	48,719	57,532
Less: current portion of warranty	36,409	39,737
Long-term warranty	$ 12,310	$ 17,795

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

	Three Months Ended March 31,	
In thousands	2020	2019
Total warranty expense	$ 1,763	$ 1,779

Note 12: Restructuring

2018 Projects

On February 22, 2018, our Board of Directors approved a restructuring plan (the 2018 Projects) to continue our efforts to optimize our global supply chain and manufacturing operations, research and development, and sales and marketing organizations. We expect to substantially complete expense recognition on the plan by the end of 2020. 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. All prior restructuring plans are substantially complete and are not presented below.

The total expected restructuring costs, the restructuring costs recognized, and the remaining expected restructuring costs related to the 2018 Projects were as follows:

In thousands	Total Expected Costs at March 31, 2020	Costs Recognized in Prior Periods	Costs Recognized During the Three Months Ended March 31, 2020	Expected Remaining Costs to be Recognized at March 31, 2020
Employee severance costs	$ 71,616	$ 72,133	$ (517)	$ —
Asset impairments & net loss (gain) on sale or disposal	2,887	3,842	(955)	—
Other restructuring costs	22,809	11,420	1,224	10,165
Total	$ 97,312	$ 87,395	$ (248)	$ 10,165

The following table summarizes the activity within the restructuring related balance sheet accounts for the 2018 Projects during the three months ended March 31, 2020:

In thousands	Accrued Employee Severance	Asset Impairments & Net Loss (Gain) on Sale or Disposal	Other Accrued Costs	Total
Beginning balance, January 1, 2020	$ 53,741	$ —	$ 2,366	$ 56,107
Costs charged to expense	(517)	(955)	1,224	(248)
Cash (payments) receipts	(4,319)	2,312	(1,246)	(3,253)
Net assets disposed and impaired	—	(1,357)	—	(1,357)
Effect of change in exchange rates	(487)	—	—	(487)
Ending balance, March 31, 2020	$ 48,418	$ —	$ 2,344	$ 50,762

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. Restructuring expense is part of the Corporate unallocated segment and is not part of the operating segments.

The current portion of restructuring liabilities was $22.2 million and $18.9 million as of March 31, 2020 and December 31, 2019. The current portion of restructuring liabilities is classified within other current liabilities on the Consolidated Balance Sheets. The long-term portion of restructuring liabilities balances was $28.6 million and $37.2 million as of March 31, 2020 and December 31, 2019. The long-term portion of restructuring liabilities is classified within other long-term obligations on the Consolidated Balance Sheets and includes severance accruals and facility exit costs.

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 will 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 March 31, 2020 or December 31, 2019.

Stock Repurchase Authorization

On March 14, 2019, Itron's Board of Directors authorized the Company to repurchase up to $50 million of our common stock over a 12-month period (the 2019 Stock Repurchase Program). Following the announcement of the program and through December 31, 2019, we repurchased 529,396 shares at an average share price of $47.22 (including commissions) for a total of $25 million. The program expired on March 13, 2020 and no additional shares were repurchased during the quarter ended March 31, 2020.

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Other Comprehensive Income (Loss)

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

In thousands	Foreign Currency Translation Adjustments	Net Unrealized Gain (Loss) on Derivative Instruments	Net Unrealized Gain (Loss) on Nonderivative Instruments	Pension Benefit Obligation Adjustments	Accumulated Other Comprehensive Income (Loss)
Balances at January 1, 2019	$ (157,489)	$ 1,201	$ (14,380)	$ (25,637)	$ (196,305)
OCI before reclassifications	(2,386)	211	—	327	(1,848)
Amounts reclassified from AOCI	—	(76)	—	144	68
Total other comprehensive income (loss)	(2,386)	135	—	471	(1,780)
Balances at March 31, 2019	$ (159,875)	$ 1,336	$ (14,380)	$ (25,166)	$ (198,085)
Balances at January 1, 2020	$ (157,999)	$ (723)	$ (14,380)	$ (31,570)	$ (204,672)
OCI before reclassifications	(25,445)	282	—	534	(24,629)
Amounts reclassified from AOCI	—	(1,049)	—	467	(582)
Total other comprehensive income (loss)	(25,445)	(767)	—	1,001	(25,211)
Balances at March 31, 2020	$ (183,444)	$ (1,490)	$ (14,380)	$ (30,569)	$ (229,883)

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

	Three Months Ended March 31,	
In thousands	2020	2019
Before-tax amount		
Foreign currency translation adjustment	$ (26,593)	$ (2,254)
Net unrealized gain (loss) on derivative instruments, designated as cash flow hedges	(10)	171
Net hedging (gain) loss reclassified to net income	(1,123)	(264)
Net unrealized gain (loss) on defined benefit plans	538	342
Net defined benefit plan (gain) loss reclassified to net income	471	179
Total other comprehensive income (loss), before tax	$ (26,717)	$ (1,826)
Tax (provision) benefit		
Foreign currency translation adjustment	$ 1,148	$ (132)
Net unrealized gain (loss) on derivative instruments, designated as cash flow hedges	292	40
Net hedging (gain) loss reclassified to net income	74	188
Net unrealized gain (loss) on defined benefit plans	(4)	(15)
Net defined benefit plan (gain) loss reclassified to net income	(4)	(35)
Total other comprehensive income (loss) tax benefit	$ 1,506	$ 46
Net-of-tax amount		
Foreign currency translation adjustment	$ (25,445)	$ (2,386)
Net unrealized gain (loss) on derivative instruments, designated as cash flow hedges	282	211
Net hedging (gain) loss reclassified to net income	(1,049)	(76)
Net unrealized gain (loss) on defined benefit plans	534	327
Net defined benefit plan (gain) loss reclassified to net income	467	144
Total other comprehensive income (loss), net of tax	$ (25,211)	$ (1,780)

Note 14: Fair Values of Financial Instruments

The fair values at March 31, 2020 and December 31, 2019 do not reflect subsequent changes in the economy, interest rates, tax rates, and other variables that may affect the determination of fair value.

	March 31, 2020		December 31, 2019	
In thousands	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Credit facility				
USD denominated term loan	$ 546,710	$ 550,136	$ 546,495	$ 550,135
Multicurrency revolving line of credit	400,000	399,984	—	—
Senior notes	386,564	371,000	385,987	416,500

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

Cash, cash equivalents, and restricted cash: 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 determined 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: Debt" for a further discussion of our debt.

Senior Notes: The Senior Notes are not registered securities nor listed on any securities exchange but may be actively traded by qualified institutional buyers. The fair value is estimated using Level 1 inputs, as it is based on quoted prices for these instruments in active markets.

Derivatives: See "Note 7: Derivative Financial Instruments" for a description of our methods and assumptions in determining the fair value of our derivatives, which were determined using Level 2 inputs. Each derivative asset and liability has a carrying value equal to fair value.

Note 15: Segment Information

We operate under the Itron brand worldwide and manage and report under three operating segments: Device Solutions, Networked Solutions, and Outcomes.

We have three GAAP measures of segment performance: revenues, gross profit (gross margin), and operating income (operating 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 the income tax provision (benefit) are neither allocated to the segments, nor are they included in the measure of segment performance. 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

Device Solutions – This segment primarily includes hardware products used for measurement, control, or sensing that do not have communications capability embedded for use with our broader Itron systems, i.e., hardware-based products not part of a complete "end-to-end" solution. Examples from the Device Solutions portfolio include: standard endpoints that are shipped without Itron communications, such as our standard gas meters, electricity IEC meters, and water meters, in addition to our heat and allocation products; communicating meters that are not a part of an Itron solution such as Smart Spec meters; and the implementation and installation of non-communicating devices, such as gas regulators.

Networked Solutions – This segment primarily includes a combination of communicating devices (smart meters, modules, endpoints, and sensors), network infrastructure, and associated application software designed and sold as a complete solution for acquiring and transporting robust application-specific data. Networked Solutions combines the majority of the assets from the recently acquired SSNI organization with our legacy Itron networking products and software and the implementation and installation of communicating devices into one operating segment. Examples from the Networked Solutions portfolio include:

communicating measurement, control, or sensing endpoints such as our Itron® and OpenWay® Riva meters, Itron traditional ERT® technology, Intelis smart gas or water meters, 500G gas communication modules, 500W water communication modules; GenX networking products, network modules and interface cards; and specific network control and management software applications. The IIoT solutions supported by this segment include automated meter reading (AMR), advanced metering infrastructure (AMI), smart grid and distribution automation (DA), and smart street lighting and smart city solutions.

Outcomes – This segment primarily includes our value-added, enhanced software and services in which we manage, organize, analyze, and interpret data to improve decision making, maximize operational profitability, drive resource efficiency, and deliver results for consumers, utilities, and smart cities. Outcomes places an emphasis on delivering to Itron customers high-value, turn-key, digital experiences by leveraging the footprint of our Device Solutions and Networked Solutions segments. The revenues from these offerings are primarily recurring in nature and would include any direct management of Device Solutions, Networked Solutions, and other products on behalf of our end customers. Examples from the Outcomes portfolio include: our meter data management and analytics offerings; our managed service solutions including network-as-a-service and platform-as-a-service, forecasting software and services; and any consulting-based engagement. Within the Outcomes segment, we also identify new business models, including performance-based contracting, to drive broader portfolio offerings across utilities and cities.

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

	Three Months Ended March 31,	
In thousands	**2020**	**2019**
Product revenues		
Device Solutions	$ 200,168	$ 218,569
Networked Solutions	315,437	314,350
Outcomes	12,532	11,931
Total Company	$ 528,137	$ 544,850
Service revenues		
Device Solutions	$ 2,111	$ 3,186
Networked Solutions	25,408	22,077
Outcomes	42,759	44,463
Total Company	$ 70,278	$ 69,726
Total revenues		
Device Solutions	$ 202,279	$ 221,755
Networked Solutions	340,845	336,427
Outcomes	55,291	56,394
Total Company	$ 598,415	$ 614,576
Gross profit		
Device Solutions	$ 32,367	$ 39,916
Networked Solutions	121,750	127,068
Outcomes	17,449	20,279
Total Company	$ 171,566	$ 187,263
Operating income (loss)		
Device Solutions	$ 18,198	$ 25,457
Networked Solutions	88,680	95,322
Outcomes	8,198	10,410
Corporate unallocated	(88,706)	(110,366)
Total Company	26,370	20,823
Total other income (expense)	(9,658)	(14,851)
Income (loss) before income taxes	$ 16,712	$ 5,972

For the three months ended March 31, 2020 and 2019, one customer represented 11% of total company revenues.

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

Revenues by region were as follows:

	Three Months Ended March 31,	
In thousands	**2020**	**2019**
United States and Canada	$ 385,325	$ 397,566
Europe, Middle East, and Africa (EMEA)	166,984	171,242
Latin America and Asia Pacific	46,106	45,768
Total Company	$ 598,415	$ 614,576

Depreciation expense is allocated to the operating segments based upon each segments use of the assets. All amortization expense is recognized within Corporate unallocated. Depreciation and amortization of intangible assets expense associated with our operating segments was as follows:

	Three Months Ended March 31,	
In thousands	**2020**	**2019**
Device Solutions	$ 6,435	$ 6,436
Networked Solutions	3,737	3,248
Outcomes	1,393	1,302
Corporate unallocated	12,466	17,441
Total Company	$ 24,031	$ 28,427

Note 16: Revenues

A summary of significant net changes in the contract assets and the contract liabilities balances during the period is as follows:

In thousands	**Contract liabilities, less contract assets**
Beginning balance, January 1, 2020	$ 88,215
Revenues recognized from beginning contract liability	(57,077)
Increases due to amounts collected or due	112,394
Revenues recognized from current period increases	(45,304)
Other	(999)
Ending balance, March 31, 2020	$ 97,229

On January 1, 2020, total contract assets were $50.7 million and total contract liabilities were $138.9 million. On March 31, 2020, total contract assets were $58.2 million and total contract liabilities were $155.4 million. The contract assets primarily relate to contracts that include a retention clause and allocations related to contracts with multiple performance obligations. The contract liabilities primarily relate to deferred revenue, such as extended warranty and maintenance cost.

Transaction price allocated to the remaining performance obligations

Total transaction price allocated to remaining performance obligations represents committed but undelivered products and services for contracts and purchase orders at period end. Twelve-month remaining performance obligations represent the portion of total transaction price allocated to remaining performance obligations that we estimate will be recognized as revenue over the next 12 months. Total transaction price allocated to remaining performance obligations is not a complete measure of our future revenues as we also receive orders where the customer may have legal termination rights but are not likely to terminate.

Total transaction price allocated to remaining performance obligations related to contracts is approximately $1.2 billion for the next twelve months and approximately $1.1 billion for periods longer than 12 months. The total remaining performance obligations consist of product and service components. The service component relates primarily to maintenance agreements for which customers pay a full year's maintenance in advance, and service revenues are generally recognized over the service period. Total transaction price allocated to remaining performance obligations also includes our extended warranty contracts, for which revenue is recognized over the warranty period, and hardware, which is recognized as units are delivered. The estimate of when remaining performance obligations will be recognized requires significant judgment.

Cost to obtain a contract and cost to fulfill a contract with a customer

Cost to obtain a contract and costs to fulfill a contract were capitalized and amortized using a systematic rational approach to align with the transfer of control of underlying contracts with customers. While amounts were capitalized, they are not material.

Disaggregation of revenue

Refer to "Note 15: Segment Information" and the Consolidated Statements of Operations for disclosure regarding the disaggregation of revenue into categories, which depict how revenue and cash flows are affected by economic factors. Specifically, our operating segments and geographical regions as disclosed, and categories for products, which include hardware and software and services, are presented.

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 the consolidated financial statements and the notes thereto for the fiscal year ended December 31, 2019 filed with the Securities and Exchange Commission (SEC) in our Annual Report on Form 10-K on February 27, 2020 (2019 Annual Report).

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*).

Certain Forward-Looking Statements

This document contains forward-looking statements concerning our operations, financial performance, revenues, earnings growth, liquidity, 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 be inaccurate and cause our actual results to vary materially from expected results. Such factors include, but are not limited to, uncertainties caused by adverse economic conditions, including, without limitation those resulting from extraordinary events or circumstances such as the COVID-19 pandemic, and their impact on our customers' businesses and workforce levels, disruptions of our business and operations, including limitations on, or closures of, our facilities, or the business and operations of our customers or suppliers. For a more complete description of these and other risks, refer to Item 1A: "Risk Factors" included in our 2019 Annual Report, Part II - Item 1A of this document, and our other reports on file with the SEC. We do not have any obligation to publicly update or revise any forward-looking statement in this document.

Overview

We are a technology and service company, which is a leader in the Industrial Internet of Things (IIoT). We offer solutions that enable utilities and municipalities to safely, securely, and reliably operate their critical infrastructure. Our solutions include the deployment of smart networks, software, services, devices, sensors, and data analytics that allow our customers to manage assets, secure revenue, lower operational costs, improve customer service, improve safety, and enable efficient management of valuable resources. Our comprehensive solutions and data analytics address the unique challenges facing the energy, water, and municipality sectors, including increasing demand on resources, non-technical loss, leak detection, environmental and regulatory compliance, and improved operational reliability.

We operate under the Itron brand worldwide and manage and report under three operating segments: Device Solutions, Networked Solutions, and Outcomes. The product and operating definitions of the three segments are as follows:

Device Solutions – This segment primarily includes hardware products used for measurement, control, or sensing that do not have communications capability embedded for use with our broader Itron systems, i.e., hardware-based products not part of a complete "end-to-end" solution. Examples from the Device Solutions portfolio include: standard endpoints that are shipped without Itron communications, such as our standard gas meters, electricity IEC meters, and water meters, in addition to our heat and allocation products; communicating meters that are not a part of an Itron solution such as Smart Spec meters; and the implementation and installation of non-communicating devices, such as gas regulators.

Networked Solutions – This segment primarily includes a combination of communicating devices (smart meters, modules, endpoints, and sensors), network infrastructure, and associated application software designed and sold as a complete solution for acquiring and transporting robust application-specific data. Networked Solutions combines the majority of the assets from the recently acquired SSNI organization with our legacy Itron networking products and software and the implementation and installation of communicating devices into one operating segment. Examples from the Networked Solutions portfolio include: communicating measurement, control, or sensing endpoints such as our Itron® and OpenWay® Riva meters, Itron traditional ERT® technology, Intelis smart gas or water meters, 500G gas communication modules, 500W water communication modules; GenX networking products, network modules and interface cards; and specific network control and management software applications. The IIoT solutions supported by this segment include automated meter reading (AMR), advanced metering infrastructure (AMI), smart grid and distribution automation (DA), and smart street lighting and smart city solutions.

Outcomes – This segment primarily includes our value-added, enhanced software and services in which we manage, organize, analyze, and interpret data to improve decision making, maximize operational profitability, drive resource efficiency, and deliver results for consumers, utilities, and smart cities. Outcomes places an emphasis on delivering to Itron customers high-value, turn-key, digital experiences by leveraging the footprint of our Device Solutions and Networked Solutions segments. The revenues from these offerings are primarily recurring in nature and would include any direct management of Device Solutions, Networked Solutions, and other products on behalf of our end customers. Examples from the Outcomes portfolio include: our meter data management and analytics offerings; our managed service solutions including network-as-a-service and platform-as-a-service, forecasting software and services; and any consulting-based engagement. Within the Outcomes segment, we also identify new business models, including performance-based contracting, to drive broader portfolio offerings across utilities and cities.

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), the income tax provision (benefit), and certain corporate operating expenses are neither allocated to the segments nor included in the measures of segment performance.

Non-GAAP Measures

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 38-40 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

Highlights and significant developments for the three months ended March 31, 2020 compared with the three months ended March 31, 2019

- Revenues were $598.4 million compared with $614.6 million in 2019, a decrease of $16.2 million, or 3%
- Gross margin was 28.7%, compared with 30.5% in the same period last year
- Operating expenses decreased $21.2 million, or 13%, compared with 2019
- Net income attributable to Itron, Inc. was $8.7 million compared with a net loss of $1.9 million in 2019
- GAAP diluted EPS increased by $0.26 to $0.21 compared with 2019
- Non-GAAP net income attributable to Itron, Inc. was $23.0 million compared with $27.9 million in 2019
- Non-GAAP diluted EPS was $0.57, a decrease of $0.13 compared with 2019
- Adjusted EBITDA decreased $13.8 million, or 21%, compared with 2019
- Total backlog was $3.0 billion and twelve-month backlog was $1.3 billion at March 31, 2020.

Outlook for 2020 due to COVID-19

The COVID-19 pandemic has had global economic impacts including disrupting global supply chains and creating market volatility. The extent of the recent pandemic and its ongoing impact on our operations is volatile, but is being monitored closely by management. Certain of our European factories were closed since the second half of March, and most had not reopened as of the end of the quarter, due to government actions and local conditions. Some of the factories have reopened subsequent to March 31, 2020. These closures as well as any further closures imposed on us could impact our results for the remainder of 2020. We expect that certain of our customers' projects and deployments may shift to later in 2020 or possibly 2021. At this time, we expect that the Q2 2020 financial results of operations will be most affected by the pandemic. However, due to the fluid nature of the COVID-19 impact, we are not able to quantify the potential impact to our results of operations for the full year. Incremental costs to us related to the COVID-19 impact, such as personal protective equipment, increased cleaning and sanitizing of our facilities, and other such items, have not been material to date. At this time, we have not identified any significant decrease in long-term customer demand for our products and services. Nonetheless, a prolonged pandemic could adversely impact the efficiency and effectiveness of our organization, further impact our global supply chain network, result in delays or decreases in customer collections, reduce demand for our products and services, and inhibit our sales efforts, any of which could materially impact our revenues, results of operations, cash flows and financial condition. For more information on risks associated with the COVID-19 pandemic, please see our updated risk in Part II, Item 1A, "Risk Factors".

The COVID 19 pandemic remains a rapidly evolving situation. Changes in the mix of earnings or losses from our different geographical operations, as well as any future enactment of tax legislation and other factors, may result in more volatile quarterly and annual effective tax rates. The detrimental impacts to financial results may be partially offset by financial assistance from the U.S. and foreign governments, including employer payroll tax credits for wages paid to employees who are unable to work during the COVID-19 outbreak. Other benefits, including options to defer payroll tax payments and additional deductions, may reduce future cash outlays.

Credit Facility

We drew $400 million U.S. dollars under the revolving line of credit within the 2018 credit facility on March 25, 2020. In light of the current uncertain environment, we deemed it prudent to increase our cash position and preserve future financial flexibility. The Total Net Leverage Ratio, as defined in the amended 2018 credit facility agreement, was unchanged by this drawing.

Total Company GAAP and Non-GAAP Highlights and Unit Shipments:

In thousands, except margin and per share data	Three Months Ended March 31, 2020	2019	% Change
GAAP			
Revenues			
Product revenues	$ 528,137	$ 544,850	(3)%
Service revenues	70,278	69,726	1%
Total revenues	598,415	614,576	(3)%
Gross profit	$ 171,566	$ 187,263	(8)%
Operating expenses	145,196	166,440	(13)%
Operating income	26,370	20,823	27%
Other income (expense)	(9,658)	(14,851)	(35)%
Income tax provision	(7,550)	(6,121)	23%
Net income (loss) attributable to Itron, Inc.	8,684	(1,907)	NM
Non-GAAP[(1)]			
Non-GAAP operating expenses	$ 133,047	$ 130,557	2%
Non-GAAP operating income	38,519	56,706	(32)%
Non-GAAP net income attributable to Itron, Inc.	22,969	27,890	(18)%
Adjusted EBITDA	51,973	65,758	(21)%
GAAP Margins and Earnings Per Share			
Gross margin			
Product gross margin	27.2 %	29.1 %	
Service gross margin	40.0 %	40.9 %	
Total gross margin	28.7 %	30.5 %	
Operating margin	4.4 %	3.4 %	
Net income (loss) per common share - Basic	$ 0.22	$ (0.05)	
Net income (loss) per common share - Diluted	$ 0.21	$ (0.05)	
Non-GAAP Earnings Per Share[(1)]			
Non-GAAP diluted EPS	$ 0.57	$ 0.70	

(1) These measures exclude certain expenses that we do not believe are indicative of our core operating results. See pages 38-40 for information about these non-GAAP measures and reconciliations to the most comparable GAAP measures.

Endpoints Summary

Our revenue is driven significantly by sales of endpoints. We classify our endpoints into two categories:

- *Standard Endpoints* – an Itron product delivered primarily via our Device Solutions segment. The majority of our standard endpoint devices are used for delivery and metrology in the electricity, water, and gas distribution industries, and have no built-in remote reading communication technology. However, some standard endpoint devices are shipped with non-Itron communications capabilities and are not a part of an Itron solution, such as the Smart Spec meters, and are classified as a standard endpoint.

- *Networked Endpoints* – an Itron product with the capability of one-way communication or two-way communication of data including remote device configuration and upgrade (consisting primarily of our OpenWay® or Gen X technology). This primarily includes Itron devices used in electricity, water, and gas distribution industries. Networked endpoints also include smart communication modules and network interface cards (NICs). NICs are communicating modules that can be sold separately from the device directly to our customers or to third party manufacturers for use in endpoints such as electric, water, and gas meters; streetlights and smart city devices; sensors or another standard device that the end customer would like to connect to our OpenWay or Gen X Networked Solutions. These endpoints are primarily delivered via our Networked Solutions segment.

A summary of our endpoints shipped is as follows:

	Three Months Ended March 31,	
Units in thousands	**2020**	**2019**
Itron Endpoints		
Standard endpoints [(1)]	5,390	5,470
Networked endpoints [(1)]	3,900	3,980
Total endpoints	9,290	9,450

(1) As of the second quarter of 2019, we have refined the definition of a standard endpoint to more closely align to the segment performance of Device Solutions and Networked Solutions as reported in the Operating Segment Results section below. The quantities presented for the three months ended March 31, 2019 have been recast to align with the refined definitions of standard and networked endpoints. The total endpoints shipped for the period is unchanged.

Results of Operations

Revenues and Gross Margin

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

	Three Months Ended March 31,				
In thousands	**2020**	**2019**	**Effect of Changes in Foreign Currency Exchange Rates**	**Constant Currency Change**	**Total Change**
Total Company					
Revenues	$ 598,415	$ 614,576	$ (8,414)	$ (7,747)	$ (16,161)
Gross profit	171,566	187,263	(1,866)	(13,831)	(15,697)

Revenues

Revenues decreased $16.2 million, or 3%, for the three months ended March 31, 2020, compared with the same period in 2019. We were negatively impacted by COVID-19 related delays, which played a significant role in lower year-over-year comparisons. Product revenues decreased by $16.7 million, and service revenues were substantially flat. For the first quarter of 2020, the Device Solutions segment decreased by $19.5 million, and the Outcomes segment decreased by $1.1 million when compared with the same period last year. The Networked Solutions segment increased by $4.4 million for the three months ended March 31, 2020, compared with the same period in 2019. During the first quarter of 2020, changes in exchange rates unfavorably impacted total revenues by $8.4 million, of which $7.6 million unfavorably impacted the Device Solutions segment total revenue.

Gross Margin

Gross margin for the three months ended March 31, 2020 was 28.7%, compared with 30.5% in 2019. We were negatively impacted by unfavorable product mix and manufacturing inefficiencies. Product sales gross margin decreased to 27.2% in the first quarter of 2020, compared with 29.1% in 2019. Gross margin on service revenues decreased to 40.0% in 2020, compared with 40.9% in 2019.

Refer to Operating Segment Results section below for further detail on total company revenues and gross margin.

Operating Expenses

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

	Three Months Ended March 31,		Effect of Changes in Foreign Currency Exchange Rates	Constant Currency Change	Total Change
In thousands	2020	2019			
Total Company					
Sales, general and administrative	$ 80,498	$ 92,715	$ (1,229)	$ (10,988)	$ (12,217)
Research and development	53,781	50,490	(131)	3,422	3,291
Amortization of intangible assets	11,165	15,973	(64)	(4,744)	(4,808)
Restructuring	(248)	7,262	(159)	(7,351)	(7,510)
Total Operating expenses	$ 145,196	$ 166,440	$ (1,583)	$ (19,661)	$ (21,244)

Operating expenses decreased $21.2 million for the three months ended March 31, 2020 as compared with the same period in 2019. This was primarily due to a decrease of $10.3 million in acquisition and integration costs that are classified within sales, general and administrative expenses, and a decrease of $7.5 million in restructuring expense.

Other Income (Expense)

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

	Three Months Ended March 31,		
In thousands	2020	2019	% Change
Interest income	$ 553	$ 328	69%
Interest expense	(10,270)	(12,335)	(17)%
Amortization of prepaid debt fees	(1,007)	(1,200)	(16)%
Other income (expense), net	1,066	(1,644)	NM
Total other income (expense)	$ (9,658)	$ (14,851)	(35)%

The change in other income (expense), net, for the three months ended March 31, 2020, as compared with the same period in 2019, was primarily the result of $2.5 million decrease in interest expense for the credit facility and the effect of 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 months ended March 31, 2020, our income tax expense was $7.6 million compared with income tax expense of $6.1 million for the same period in 2019. Our tax rate for the three months ended March 31, 2020 of 45% differed from the federal statutory rate of 21% due to the forecasted mix of earnings in domestic and international jurisdictions, losses experienced in jurisdictions with valuation allowances on deferred tax assets, a benefit related to excess stock-based compensation, and uncertain tax positions. Our tax rate for the three months ended March 31, 2019 of 102% differed from the federal statutory rate of 21% due to the forecasted mix of earnings in domestic and international jurisdictions, a benefit related to excess stock based compensation, and losses experienced in jurisdictions with valuation allowances on deferred tax assets.

For additional discussion related to income taxes, see Item 1: "Financial Statements (Unaudited), Note 10: Income Taxes".

Operating Segment Results

For a description of our operating segments, refer to Item 1: "Financial Statements (Unaudited) Note 15: Segment Information". The following tables and discussion highlight significant changes in trends or components of each operating segment:

	Three Months Ended March 31,		
In thousands	2020	2019	% Change
Segment Revenues			
Device Solutions	$ 202,279	$ 221,755	(9)%
Networked Solutions	340,845	336,427	1%
Outcomes	55,291	56,394	(2)%
Total revenues	$ 598,415	$ 614,576	(3)%

	Three Months Ended March 31,			
	2020		2019	
In thousands	*Gross Profit*	*Gross Margin*	*Gross Profit*	*Gross Margin*
Segment Gross Profit and Margin				
Device Solutions	$ 32,367	16.0%	$ 39,916	18.0%
Networked Solutions	121,750	35.7%	127,068	37.8%
Outcomes	17,449	31.6%	20,279	36.0%
Total gross profit and margin	$ 171,566	28.7%	$ 187,263	30.5%

	Three Months Ended March 31,		
In thousands	2020	2019	% Change
Segment Operating Expenses			
Device Solutions	$ 14,169	$ 14,459	(2)%
Networked Solutions	33,070	31,746	4%
Outcomes	9,251	9,869	(6)%
Corporate unallocated	88,706	110,366	(20)%
Total operating expenses	$ 145,196	$ 166,440	(13)%

	Three Months Ended March 31,			
	2020		2019	
In thousands	*Operating Income (Loss)*	*Operating Margin*	*Operating Income (Loss)*	*Operating Margin*
Segment Operating Income (Loss) and Operating Margin				
Device Solutions	$ 18,198	9.0%	$ 25,457	11.5%
Networked Solutions	88,680	26.0%	95,322	28.3%
Outcomes	8,198	14.8%	10,410	18.5%
Corporate unallocated	(88,706)	(14.8)%	(110,366)	(18.0)%
Total operating income and operating margin	$ 26,370	4.4%	$ 20,823	3.4%

Device Solutions

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

In thousands	Three Months Ended March 31, 2020	Three Months Ended March 31, 2019	Effect of Changes in Foreign Currency Exchange Rates	Constant Currency Change	Total Change
Device Solutions Segment					
Revenues	$ 202,279	$ 221,755	$ (7,633)	$ (11,843)	$ (19,476)
Gross profit	32,367	39,916	(1,505)	(6,044)	(7,549)
Operating expenses	14,169	14,459	(111)	(179)	(290)

Revenues - Three months ended March 31, 2020 vs. Three months ended March 31, 2019

Revenues decreased $19.5 million, or 9%. Changes in foreign currency exchange rates unfavorably impacted revenues by $7.6 million, and we were also impacted by COVID-19 related delays. The decrease in revenue was due to lower EMEA water and gas shipments of $12.9 million. These decreases were partially offset by higher shipments for electricity devices of $1.8 million.

Gross Margin - Three months ended March 31, 2020 vs. Three months ended March 31, 2019

For the three months ended March 31, 2020, gross margin was 16.0%, compared with 18.0% for the three months in 2019. During 2020, the 200 basis point reduction over the prior year was primarily due to $6.9 million from unfavorable product mix and manufacturing inefficiencies, partially offset by lower warranty expense of $0.7 million.

Operating Expenses - Three months ended March 31, 2020 vs. Three months ended March 31, 2019

Operating expenses decreased $0.3 million, or 2%, for the three months ended March 31, 2020, compared with the same period in 2019. The decrease was primarily a result of lower research and development expense.

Networked Solutions

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

In thousands	Three Months Ended March 31, 2020	Three Months Ended March 31, 2019	Effect of Changes in Foreign Currency Exchange Rates	Constant Currency Change	Total Change
Networked Solutions Segment					
Revenues	$ 340,845	$ 336,427	$ (389)	$ 4,807	$ 4,418
Gross profit	121,750	127,068	(157)	(5,161)	(5,318)
Operating expenses	33,070	31,746	(22)	1,346	1,324

Revenues - Three months ended March 31, 2020 vs. Three months ended March 31, 2019

Revenues increased $4.4 million, or 1%, for the three months ended March 31, 2020 compared with the same period in 2019, despite COVID-19 related delays. The change was primarily driven by continued strength in North America AMI deployments, with higher maintenance service revenue of $3.3 million and product revenue of $1.1 million.

Gross Margin - Three months ended March 31, 2020 vs. Three months ended March 31, 2019

Gross margin was 35.7% for the three months ended March 31, 2020, compared with 37.8% for the same period in 2019. The 210 basis point decrease was primarily related to higher deployment cost and unfavorable product mix.

Operating Expenses - Three months ended March 31, 2020 vs. Three months ended March 31, 2019

Operating expenses increased $1.3 million, or 4%, for the three months ended March 31, 2020, compared with the same period in 2019. The increase was primarily related to higher research and development expenses of $1.8 million, partially offset by a decrease of $0.5 in sales and marketing labor expense.

Outcomes

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

In thousands	Three Months Ended March 31, 2020	Three Months Ended March 31, 2019	Effect of Changes in Foreign Currency Exchange Rates	Constant Currency Change	Total Change
Outcomes Segment					
Revenues	$ 55,291	$ 56,394	$ (392)	$ (711)	$ (1,103)
Gross profit	17,449	20,279	(203)	(2,627)	(2,830)
Operating expenses	9,251	9,869	(21)	(597)	(618)

Revenues - Three months ended March 31, 2020 vs. Three months ended March 31, 2019
Revenues decreased $1.1 million, or 2%, for the three months ended March 31, 2020, compared with the same period in 2019. This decline was driven by a decrease in managed services of $1.7 million, partially offset by an increase in maintenance revenue of $1.2 million.

Gross Margin - Three months ended March 31, 2020 vs. Three months ended March 31, 2019
Gross margin decreased to 31.6% for the three months ended March 31, 2020, compared with 36.0% for the same period last year. The 440 basis point decrease was driven by product mix and infrastructure investments, partially offset by an increase in maintenance.

Operating Expenses - Three months ended March 31, 2020 vs. Three months ended March 31, 2019
Operating expenses for the three months ended March 31, 2020 decreased $0.6 million, or 6%, compared with the same period last year. This was primarily related to lower product marketing expenses of $0.4 million and lower research and development expenses of $0.2 million.

Corporate Unallocated

Corporate Unallocated Expenses - Three months ended March 31, 2020 vs. Three months ended March 31, 2019
Operating expenses not directly associated with an operating segment are classified as "Corporate unallocated." These expenses decreased $21.7 million, or 20%, for the three months ended March 31, 2020 compared with the same period in 2019. This was primarily the result of a $10.3 million decrease in acquisition and integration costs and a $7.5 million decrease in restructuring expense.

Bookings and Backlog of Orders

Bookings for a reported period represent customer contracts and purchase orders received during the period for hardware, software, and services 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, as well as frame contracts. 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, foreign currency fluctuations, and other factors. Total bookings and backlog include certain contracts with termination for convenience clause, which will not agree to the total transaction price allocated to the remaining performance obligations disclosed in Item 1: "Financial Statements (Unaudited), Note 16: Revenues".

Quarter Ended	Quarterly Bookings	Ending Total Backlog	Ending 12-Month Backlog
In millions			
March 31, 2020	$ 418	$ 3,020	$ 1,319
December 31, 2019	767	3,207	1,499
September 30, 2019	609	3,063	1,361
June 30, 2019	702	3,090	1,403
March 31, 2019	473	3,022	1,375

Financial Condition

Cash Flow Information

	Three Months Ended March 31,	
In thousands	2020	2019
Cash provided by operating activities	$ 18,894	$ 24,924
Cash used in investing activities	(9,257)	(11,116)
Cash provided by (used in) financing activities	401,737	(23,243)
Effect of exchange rates on cash, cash equivalents, and restricted cash	(6,758)	72
Increase (decrease) in cash, cash equivalents, and restricted cash	$ 404,616	$ (9,363)

Cash, cash equivalents, and restricted cash was $554.5 million at March 31, 2020, compared with $149.9 million at December 31, 2019. The $404.6 million increase in cash, cash equivalents, and restricted cash in the 2020 period was primarily the result of a $400 million draw from our credit facility, along with cash flows from operating activities, partially offset by acquisitions of property, plant, and equipment.

Operating activities
Cash provided by operating activities during the three months in 2020 was $18.9 million compared with $24.9 million during the same period in 2019. The decrease was primarily due to changes in working capital, with increased variable compensation payouts, partially offset by higher net income in 2020.

Investing activities
Cash used by investing activities during 2020 was $1.9 million lower than in 2019. This decrease in use of cash was primarily related to proceeds received from the sale of property, plant and equipment, partially offset by a $1.2 million greater investment in property, plant, and equipment.

Financing activities
Net cash provided by financing activities during the three months in 2020 was $401.7 million, compared with net cash used of $23.2 million for the same period in 2019. On March 25, 2020, we drew on our revolver in the amount of $400 million to increase our cash position and preserve future financial flexibility. In 2019, we had net repayments of debt of $14.1 million.

Effect of exchange rates on cash and cash equivalents
The effect of exchange rates on the cash balances of currencies held in foreign denominations at March 31, 2020 was a decrease of $6.8 million, compared with an increase of $0.1 million for the same period in 2019. Our foreign currency exposure relates to non-U.S. dollar denominated balances in our international subsidiary operations.

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 from operating activities as a measure of liquidity. We calculate free cash flows, using amounts from our Consolidated Statements of Cash Flows, as follows:

	Three Months Ended March 31,	
In thousands	**2020**	**2019**
Cash provided by operating activities	$ 18,894	$ 24,924
Acquisitions of property, plant, and equipment	(12,602)	(11,415)
Free cash flow	$ 6,292	$ 13,509

Free cash flow fluctuated primarily as a result of changes in 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 March 31, 2020 and December 31, 2019 that we believe could reasonably likely 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, continues to be in a net favorable position.

Borrowings

On October 18, 2019 we amended our credit facility that was initially entered on January 5, 2018 (together with the amendment, the "2018 credit facility"). The 2018 credit facility provides for committed credit facilities in the amount of $1.2 billion U.S. dollars. The 2018 credit facility consists of a $650 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 $300 million standby letter of credit sub-facility and a $50 million swingline sub-facility. The October 18, 2019, amendment extended the maturity date to October 18, 2024 and re-amortized the term loan based on the new balance as of the amendment date.

We drew $400 million in U.S. dollars under the revolving line of credit within the 2018 credit facility on March 25, 2020. In light of the current uncertain environment, we deemed it prudent to increase our cash position and preserve future financial flexibility. The Total Net Leverage Ratio, as defined in the amended 2018 credit facility agreement, is unchanged by this drawing.

In December 2017 and January 2018, we issued a combined $400 million in aggregate principal amount of 5.00% senior notes maturing January 15, 2026 (Senior Notes). The proceeds were used to refinance existing indebtedness related to the acquisition of SSNI, pay related fees and expenses, and for general corporate purposes. Interest on the Senior Notes is payable semi-annually in arrears on January 15 and July 15, commencing on July 15, 2018. The Senior Notes are fully and unconditionally guaranteed, jointly and severally, on a senior unsecured basis by each of our subsidiaries that guarantee the 2018 credit facility.

Prior to maturity, we may redeem some or all of the Senior Notes, together with accrued and unpaid interest, if any, plus a "make-whole" premium. On or after January 15, 2021, we may redeem some or all of the Senior Notes at any time at declining redemption prices equal to 102.50% beginning on January 15, 2021, 101.25% beginning on January 15, 2022 and 100.00% beginning on January 15, 2023 and thereafter to the applicable redemption date. In addition, before January 15, 2021, and subject to certain conditions, we may redeem up to 35% of the aggregate principal amount of Senior Notes with the net proceeds of certain equity offerings at 105.00% of the principal amount thereof to the date of redemption; provided that (i) at least 65% of the aggregate principal amount of Senior Notes remains outstanding after such redemption and (ii) the redemption occurs within 60 days of the closing of any such equity offering.

For further description of our borrowings, refer to Item 1: "Financial Statements (Unaudited), 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 (Unaudited), Note 11: Commitments and Contingencies".

Silver Spring Networks, Inc. Acquisition

As part of the acquisition of SSNI, we announced an integration plan to obtain approximately $50 million of annualized savings by the end of 2020. For the three months ended March 31, 2020, we paid out $6.0 million and we have approximately $10 million to $15 million of estimated cash payments remaining on the integration plan, the majority of which is expected to be paid out in the next 12 months. We have recognized $1.3 million of acquisition and integration related expenses during the first quarter of 2020.

Restructuring

For the three months ended March 31, 2020, we paid out a net $3.3 million related to the restructuring projects. As of March 31, 2020, $50.8 million was accrued for restructuring projects, of which $22.2 million is expected to be paid over the next 12 months.

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

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 $3 million in state taxes and approximately $6 million in local and foreign taxes during 2020. We expect to receive approximately $7 million in U.S. federal tax refunds. For a discussion of our tax provision and unrecognized tax benefits, see Item 1: "Financial Statements (Unaudited), Note 10: Income Taxes".

At March 31, 2020, we are under examination by certain tax authorities. 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.

As of March 31, 2020, there was $41.4 million of cash and short-term investments held by certain foreign subsidiaries in which we are permanently reinvested for tax purposes. As a result of recent changes in U.S. tax legislation, any repatriation in the future would not result in U.S. federal income tax. Accordingly, there is no provision for U.S. deferred taxes on this cash. If this cash were repatriated to fund U.S. operations, additional withholding tax costs may be incurred. Tax is only one of the many factors that we consider in the management of global cash. 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 March 31, 2020, $8.9 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 research and 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, duration of the COVID-19 pandemic, future business combinations, capital market fluctuations, international risks, and other factors described under "Risk Factors" within Item 1A of Part I of our 2019 Annual Report, 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 (Unaudited), Note 11: Commitments and Contingencies".

Critical Accounting Estimates and Policies

Our consolidated financial statements and accompanying notes are prepared in accordance with U.S. GAAP. Preparing consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, and expenses. These estimates and assumptions are based on historical experience and on various other assumptions management believes to be reasonable. 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 2019 Annual Report and have not changed materially.

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

The accompanying schedule contains non-GAAP financial measures. To supplement our consolidated financial statements, which are prepared in accordance with GAAP, we use certain non-GAAP financial measures, including non-GAAP operating expense, non-GAAP operating income, non-GAAP net income, non-GAAP diluted EPS, adjusted EBITDA, free cash flow, and constant currency. The presentation of this financial information is not intended to be considered in isolation or as a substitute for, or superior to, the financial information prepared and presented in accordance with GAAP, and other companies may define such measures differently. For more information on these non-GAAP financial measures, please see the table captioned "Reconciliations of Non-GAAP Financial Measures to the most Directly Comparable GAAP Financial Measures".

We use these non-GAAP financial measures for financial and operational decision making and/or as a means for determining executive compensation. Management believes that these non-GAAP financial measures provide meaningful supplemental information regarding our performance and ability to service debt by excluding certain expenses that may not be indicative of our recurring core operating results. 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 acquisition and integration related expenses, 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, corporate transition cost, 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, corporate transition cost, 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 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, amortization of debt placement fees, restructuring, corporate transition cost, acquisition and integration, goodwill impairment, 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.

For interim periods, beginning the first quarter of 2019, the budgeted annual effective tax rate (AETR) is used, adjusted for any discrete items, as defined in ASC 740 - Income Taxes. The budgeted AETR is determined at the beginning of the fiscal year. The AETR is revised throughout the year based on changes to our full-year forecast. If the revised AETR increases or decreases by 200 basis points or more from the budgeted AETR due to changes in the full-year forecast during the year, the revised AETR is used in place of the budgeted AETR beginning with the quarter the 200 basis point threshold is exceeded and going forward for all subsequent interim quarters in the year. We continue to assess the AETR based on latest forecast throughout the year and use the most recent AETR anytime it increases or decreases by 200 basis points or more from the prior interim period.

Adjusted EBITDA – We define adjusted EBITDA as net income (a) minus interest income, (b) plus interest expense, depreciation and amortization of intangible assets, restructuring, corporate transition cost, 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 (loss).

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.

Reconciliations of Non-GAAP Financial Measures to the most Directly Comparable GAAP Financial Measures

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

TOTAL COMPANY RECONCILIATIONS	**Three Months Ended March 31,**			
In thousands, except per share data		**2020**		**2019**
NON-GAAP OPERATING EXPENSES				
GAAP operating expenses	$	145,196	$	166,440
Amortization of intangible assets		(11,165)		(15,973)
Restructuring		248		(7,262)
Corporate transition cost		40		(1,083)
Acquisition and integration related expense		(1,272)		(11,565)
Non-GAAP operating expenses	$	133,047	$	130,557
NON-GAAP OPERATING INCOME				
GAAP operating income	$	26,370	$	20,823
Amortization of intangible assets		11,165		15,973
Restructuring		(248)		7,262
Corporate transition cost		(40)		1,083
Acquisition and integration related expense		1,272		11,565
Non-GAAP operating income	$	38,519	$	56,706
NON-GAAP NET INCOME & DILUTED EPS				
GAAP net income (loss) attributable to Itron, Inc.	$	8,684	$	(1,907)
Amortization of intangible assets		11,165		15,973
Amortization of debt placement fees		963		1,156
Restructuring		(248)		7,262
Corporate transition cost		(40)		1,083
Acquisition and integration related expense		1,272		11,565
Income tax effect of non-GAAP adjustments		1,173		(7,242)
Non-GAAP net income attributable to Itron, Inc.	$	22,969	$	27,890
Non-GAAP diluted EPS	$	0.57	$	0.70
Weighted average common shares outstanding - Diluted		40,474		40,066
ADJUSTED EBITDA				
GAAP net income (loss) attributable to Itron, Inc.	$	8,684	$	(1,907)
Interest income		(553)		(328)
Interest expense		11,277		13,535
Income tax provision		7,550		6,121
Depreciation and amortization		24,031		28,427
Restructuring		(248)		7,262
Corporate transition cost		(40)		1,083
Acquisition and integration related expense		1,272		11,565
Adjusted EBITDA	$	51,973	$	65,758
FREE CASH FLOW				
Net cash provided by operating activities	$	18,894	$	24,924
Acquisitions of property, plant, and equipment		(12,602)		(11,415)
Free Cash Flow	$	6,292	$	13,509

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. In March 2020, we entered into an interest rate swap, which is effective from June 30, 2020 to June 30, 2023, and converts $240 million of our LIBOR-based debt from a floating LIBOR interest rate to a fixed interest rate of 0.617% (excluding the applicable margin). The notional balance will amortize to maturity at the same rate of originally required amortizations on our term loan. At March 31, 2020, our LIBOR-based debt balance was $950.2 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.

In April 2018, we entered into a cross-currency swap, which converts $56.0 million of floating rate LIBOR-based U.S. dollar denominated debt into 1.38% fixed rate euro denominated debt. This cross-currency swap matures on April 30, 2021 and mitigates the risk associated with fluctuations in interest and currency rates impacting cash flows related to a U.S. dollar denominated debt in a euro functional currency entity.

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 March 31, 2020. Weighted average variable rates in the table are based on implied forward rates in the Reuters U.S. dollar yield curve as of March 31, 2020 and our estimated leverage ratio, which determines our additional interest rate margin at March 31, 2020.

Dollars in thousands	2020	2021	2022	2023	2024	Total	Fair Value
Variable Rate Debt							
Principal: U.S. dollar term loan	$ —	$ 32,422	$ 44,063	$ 44,063	$ 429,608	$ 550,156	$ 550,136
Weighted average interest rate	1.82 %	1.70 %	1.82 %	1.89 %	2.01 %		
Principal: Multicurrency revolving line of credit	$ —	$ —	$ —	$ —	$ 400,000	$ 400,000	$ 399,984
Weighted average interest rate	1.82 %	1.70 %	1.82 %	1.89 %	2.01 %		
Interest rate swap							
Weighted average interest rate (pay) Fixed	0.88 %	0.62 %	0.62 %	0.62 %			
Weighted average interest rate (receive) Floating LIBOR	0.32 %	0.20 %	0.32 %	0.34 %			
Interest rate cap							
Cap rate	2.00 %						
Weighted average interest rate Floating LIBOR	0.61 %						
Cross currency swap							
Weighted average interest rate (pay) Fixed - EURIBOR	1.38 %	1.38 %					
Weighted average interest rate (receive) Floating - LIBOR	0.32 %	0.18 %					

Based on a sensitivity analysis as of March 31, 2020, we estimate that, if market interest rates average one percentage point higher in 2020 than in the table above, our financial results in 2020 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 39% of total revenues for the three months ended March 31, 2020 compared with 37% for the same respective periods in 2019.

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 March 31, 2020, a total of 53 contracts were offsetting our exposures from the euro, Indonesian rupiah, Chinese yuan, Canadian dollar, Indian rupee and various other currencies, with notional amounts ranging from $113,000 to $26.4 million. Based on a sensitivity analysis as of March 31, 2020, we estimate that, if foreign currency exchange rates average ten percentage points higher in 2019 for these financial instruments, our financial results in 2019 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 March 31, 2020, 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

There have been no changes in our internal control over financial reporting during the three months ended March 31, 2020 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 (Unaudited), Note 11: Commitments and Contingencies".

Item 1A: Risk Factors

For a complete list of Risk Factors, refer to Item 1A: "Risk Factors" of Part I of our Annual Report on Form 10-K for the fiscal year ended December 31, 2019, which was filed with the Securities and Exchange Commission on February 27, 2020.

We have been and will continue to be affected by the ongoing COVID-19 pandemic, and such effects could have an adverse effect on our business operations, results of operations, cash flows, and financial condition.

We have experienced disruptions to our business from the ongoing COVID-19 pandemic, and the full impact of the COVID-19 pandemic on all aspects of our business and geographic markets is highly uncertain and cannot be predicted with confidence. This includes how it may impact our customers, employees, vendors, strategic partners, managed services, and manufacturing operations. The COVID-19 pandemic has created significant volatility, uncertainty, and economic disruption, which may materially and adversely affect our business operations, cash flows, and financial condition.

The impact of the virus on third parties on which we rely, such as our suppliers, contract manufacturers, distributors, and strategic partners, cannot be fully known or controlled by us. As a result, we may experience difficulties sourcing components and other critical inventory. The impact of the COVID-19 pandemic on our customers and demand for our products is also uncertain. Due to resulting financial constraints, illness within their organizations, quarantine and travel restrictions placed upon our customers' employees, as well as individual actions our customers may take in response to the spread of COVID-19, our customers may have difficulty in making timely payments to us or may have an inability or unwillingness to purchase our products and services. Also, certain of our projects require regulatory approvals, and our customers may experience delays in regulatory approvals. Any of these effects may materially and adversely affect us.

Our company is also taking measures, both voluntary and as a result of government directives and guidance, to mitigate the effects of the COVID-19 pandemic on us and others. These measures include, among others, restrictions on our employees' access to our physical work locations and the purchase of personal protective equipment. Additionally, we have implemented the temporary closure or reduction in operations of certain of our manufacturing facilities, which is disruptive to our operations. We have also implemented measures to allow certain employees to work remotely, which may place a burden on our IT systems and may expose us to increased vulnerability to cyber-attack and other cyber-disruption. Many of these measures may result in incremental costs to us, and such costs may not be recoverable or adequately covered by our insurance. Further, any focus by our management on mitigating COVID-19 effects has required, and will continue to require, a large investment of time and resources, which may delay other value-add initiatives.

As a company with global operations, we are subject to numerous government jurisdictions at all levels that are addressing COVID-19 differently. The guidance and directives provided by these governmental authorities is difficult to predict, may be unclear in their application, and are unknown in duration. This includes uncertainty in governmental authorities' assessments of our business as "essential". If governmental authorities were to reverse their designation of our business as "essential", it could have a material effect on our results of operations and cash flows.

The full extent to which the COVID-19 pandemic impacts us depends on numerous evolving factors and future developments that we are not able to predict at this time, including: medical advancements to treat or stop the virus, governmental, business, and other actions (which could include limitations on our operations to provide products or services); the duration of the outbreak and the related limitations on our ability to conduct business; or the length of time and velocity at which we will return to more normalized operations. In addition, we cannot predict the impact that COVID-19 will have on our customers, vendors, strategic partners, and other business partners, and each of their financial conditions; however, any material effect on these parties could materially and adversely impact us. The impact of COVID-19 may also include possible impairment or other charges and may exacerbate other risks discussed in Item 1A. Risk Factors in our Annual Report on Form 10-K, any of which could have a material effect on us. This situation is changing rapidly and additional impacts may arise that we are not aware of currently.

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

(a) Not applicable.

(b) Not applicable.

(c) Issuer Repurchase of Equity Securities

Period	Total Number of Shares Purchased [1]	Average Price Paid per Share [2]	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs
				(in thousands)
January 1 through January 31, 2020	—	$ —	—	$ 25,000
February 1, 2020 through February 29, 2020	8,082	82.10	—	25,000
March 1, 2020 through March 31, 2020	—	—	—	—
Total	8,082		—	

(1) Shares repurchased represent shares transferred to us by certain employees who vested in restricted stock units and used shares to pay all, or a portion of, the related taxes. On March 14, 2019, Itron's Board authorized a repurchase program of up to $50 million of our common stock over a 12-month period. Repurchases are made in the open market or in privately negotiated transactions, and in accordance with applicable securities laws. There were no repurchases of equity securities during the quarter ended March 31, 2020.

(2) Includes commissions.

Item 5: Other Information

(a) No information was required to be disclosed in a report on Form 8-K during the first quarter of 2020 that was not reported.

(b) Not applicable.

Item 6: Exhibits

Exhibit Number	Description of Exhibits
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	The following financial information from Itron, Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2020 formatted in Inline XBRL (Extensible Business Reporting Language) includes: (i) the Consolidated Statements of Operations, (ii) the Consolidated Statements of Comprehensive Income (Loss), (iii) the Consolidated Balance Sheets, (iv) the Consolidated Statements of Equity, (v) the Consolidated Statements of Cash Flows, and (vi) Notes to the Consolidated Financial Statements.
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

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.

May 4, 2020	By:	/s/ JOAN S. HOOPER
Date		**Joan S. Hooper**
		Senior Vice President and Chief Financial Officer

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, Thomas L. Deitrich, 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/ THOMAS L. DEITRICH

Thomas L. Deitrich
President and Chief Executive Officer

Date: May 4, 2020

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: May 4, 2020

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 March 31, 2020 (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.

Thomas L. Deitrich, the Chief Executive Officer and Joan S. Hooper, the Chief Financial Officer of the Company, each certifies that to the best of his or her 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/ THOMAS L. DEITRICH	May 4, 2020
Thomas L. Deitrich **President and Chief Executive Officer**	**Date**
/s/ JOAN S. HOOPER	May 4, 2020
Joan S. Hooper **Senior Vice President and Chief Financial Officer**	**Date**