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

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the quarterly period ended June 30, 2023

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from to

Commission File Number: 001-39548

BENTLEY SYSTEMS, INCORPORATED
(Exact name of registrant as specified in its charter)

Delaware	**95-3936623**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
685 Stockton Drive **Exton, Pennsylvania**	**19341**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(610) 458-5000**

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Class B Common Stock, par value $0.01 per share	**BSY**	**The Nasdaq Stock Market LLC**

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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 ☐	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 August 1, 2023, the registrant had 11,601,757 shares of Class A and 283,364,519 shares of Class B Common Stock outstanding.

BENTLEY SYSTEMS, INCORPORATED
FORM 10-Q
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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This report includes forward-looking statements. All statements contained in this report other than statements of historical facts, including statements regarding our future results of operations and financial position, our business strategy, and plans and our objectives for future operations, are forward-looking statements. The words “believe,” “may,” “will,” “could,” “would,” “seeks,” “estimate,” “continue,” “anticipate,” “intend,” “expect,” and similar expressions, as well as statements regarding our focus for the future, are intended to identify forward-looking statements. We have based these forward-looking statements largely on our current expectations, projections, and assumptions about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy, short-term and long-term business operations and objectives, and financial needs. These forward-looking statements are subject to a number of risks, uncertainties, and assumptions, including those described in the section titled “Risk Factors.” Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties, and assumptions, the future events and trends discussed in this report may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. The forward-looking statements, as well as our report as a whole, are subject to risks and uncertainties.

These statements are only current predictions and are subject to known and unknown risks, uncertainties, and other factors that may cause our or our industry’s actual results, levels of activity, performance, or achievements to be materially different from those anticipated by the forward-looking statements. We discuss many of these risks in this report in greater detail in the section titled “Risk Factors” and elsewhere in this report. You should not rely upon forward-looking statements as predictions of future events.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, achievements, events, or circumstances reflected in the forward-looking statements will occur. Except as required by law, we undertake no obligation to update any of these forward-looking statements after the date of this report to conform these statements to actual results or revised expectations.

PART I. FINANCIAL INFORMATION

Item 1. Unaudited Consolidated Financial Statements

BENTLEY SYSTEMS, INCORPORATED
Consolidated Balance Sheets
(in thousands, except share and per share data)
(unaudited)

	June 30, 2023	December 31, 2022
Assets		
Current assets:		
Cash and cash equivalents	$ 82,716	$ 71,684
Accounts receivable	252,863	296,376
Allowance for doubtful accounts	(8,656)	(9,303)
Prepaid income taxes	20,491	18,406
Prepaid and other current assets	44,043	38,732
Total current assets	391,457	415,895
Property and equipment, net	35,520	32,251
Operating lease right-of-use assets	43,248	40,249
Intangible assets, net	271,639	292,271
Goodwill	2,252,832	2,237,184
Investments	26,997	22,270
Deferred income taxes	68,681	52,636
Other assets	73,553	72,249
Total assets	$ 3,163,927	$ 3,165,005
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 37,423	$ 15,176
Accruals and other current liabilities	398,883	362,048
Deferred revenues	231,473	226,955
Operating lease liabilities	12,533	14,672
Income taxes payable	21,383	4,507
Current portion of long-term debt	7,500	5,000
Total current liabilities	709,195	628,358
Long-term debt	1,629,483	1,775,696
Deferred compensation plan liabilities	82,641	77,014
Long-term operating lease liabilities	32,273	27,670
Deferred revenues	16,282	16,118
Deferred income taxes	37,773	51,235
Income taxes payable	7,316	8,105
Other liabilities	5,192	7,355
Total liabilities	2,520,155	2,591,551
Commitments and contingencies (Note 18)		
Stockholders' equity:		
Preferred stock, $0.01 par value, authorized 100,000,000 shares; none issued or outstanding as of June 30, 2023 and December 31, 2022	—	—
Class A Common Stock, $0.01 par value, authorized 100,000,000 shares; issued and outstanding 11,601,757 shares as of June 30, 2023 and December 31, 2022, and Class B Common Stock, $0.01 par value, authorized 1,800,000,000 shares; issued and outstanding 283,111,226 and 277,412,730 shares as of June 30, 2023 and December 31, 2022, respectively	2,947	2,890
Additional paid-in capital	1,085,066	1,030,466
Accumulated other comprehensive loss	(87,828)	(89,740)
Accumulated deficit	(357,117)	(370,866)
Non-controlling interest	704	704
Total stockholders' equity	643,772	573,454
Total liabilities and stockholders' equity	$ 3,163,927	$ 3,165,005

See accompanying notes to consolidated financial statements.

BENTLEY SYSTEMS, INCORPORATED
Consolidated Statements of Operations
(in thousands, except share and per share data)
(unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	**2022**	**2023**	**2022**
Revenues:				
Subscriptions	$ 259,243	$ 232,191	$ 537,088	$ 473,424
Perpetual licenses	11,718	11,548	21,265	21,753
Subscriptions and licenses	270,961	243,739	558,353	495,177
Services	25,788	24,546	52,807	48,625
Total revenues	296,749	268,285	611,160	543,802
Cost of revenues:				
Cost of subscriptions and licenses	41,156	36,806	82,087	70,533
Cost of services	25,270	22,888	51,523	44,946
Total cost of revenues	66,426	59,694	133,610	115,479
Gross profit	230,323	208,591	477,550	428,323
Operating expense (income):				
Research and development	70,117	64,866	137,917	126,139
Selling and marketing	54,364	49,617	106,505	95,562
General and administrative	39,258	40,033	86,065	91,187
Deferred compensation plan	3,777	(12,159)	7,923	(17,297)
Amortization of purchased intangibles	9,502	10,517	20,050	20,423
Total operating expenses	177,018	152,874	358,460	316,014
Income from operations	53,305	55,717	119,090	112,309
Interest expense, net	(9,484)	(7,639)	(20,576)	(14,387)
Other income, net	965	3,514	1,254	13,861
Income before income taxes	44,786	51,592	99,768	111,783
Benefit (provision) for income taxes	3,899	4,674	(5,593)	1,443
Loss from investments accounted for using the equity method, net of tax	—	(593)	—	(1,165)
Net income	$ 48,685	$ 55,673	$ 94,175	$ 112,061
Per share information:				
Net income per share, basic	$ 0.16	$ 0.18	$ 0.30	$ 0.36
Net income per share, diluted	$ 0.15	$ 0.17	$ 0.29	$ 0.35
Weighted average shares, basic	311,914,602	308,244,778	311,366,371	308,512,924
Weighted average shares, diluted	332,352,725	332,275,216	331,831,973	332,208,435

See accompanying notes to consolidated financial statements.

BENTLEY SYSTEMS, INCORPORATED
Consolidated Statements of Comprehensive Income
(in thousands)
(unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	**2022**	**2023**	**2022**
Net income	$ 48,685	$ 55,673	$ 94,175	$ 112,061
Other comprehensive income (loss), net of taxes:				
Foreign currency translation adjustments	1,538	(13,820)	1,878	2,617
Actuarial gain on retirement plan, net of tax effect of $(1), $(5), $(7), and $(10), respectively	8	13	34	26
Total other comprehensive income (loss), net of taxes	1,546	(13,807)	1,912	2,643
Comprehensive income	$ 50,231	$ 41,866	$ 96,087	$ 114,704

See accompanying notes to consolidated financial statements.

BENTLEY SYSTEMS, INCORPORATED
Consolidated Statements of Stockholders' Equity
(in thousands, except share data)
(unaudited)

	Three Months Ended June 30, 2023												
	Class A and Class B Common Stock			Additional Paid-In Capital		Accumulated Other Comprehensive Loss		Accumulated Deficit		Non-Controlling Interest		Total Stockholders' Equity	
	Shares	Par Value											
Balance, March 31, 2023	291,501,271	$	2,915	$	1,060,842	$	(89,374)	$	(360,897)	$	704	$	614,190
Net income	—		—		—		—		48,685		—		48,685
Other comprehensive income	—		—		—		1,546		—		—		1,546
Dividends declared	—		—		—		—		(14,702)		—		(14,702)
Shares issued in connection with deferred compensation plan, net	1,729,443		17		(17)		—		(22,703)		—		(22,703)
Deferred compensation plan elective participant deferrals	—		—		118		—		—		—		118
Shares issued in connection with executive bonus plan, net	57,393		1		4,321		—		(1,901)		—		2,421
Stock option exercises, net	1,308,527		13		5,485		—		(4,288)		—		1,210
Shares issued for stock grants, net	12,639		—		600		—		—		—		600
Stock-based compensation expense	—		—		13,718		—		—		—		13,718
Shares related to restricted stock, net	103,710		1		(1)		—		(1,311)		—		(1,311)
Balance, June 30, 2023	294,712,983	$	2,947	$	1,085,066	$	(87,828)	$	(357,117)	$	704	$	643,772

	Six Months Ended June 30, 2023												
	Class A and Class B Common Stock			Additional Paid-In Capital		Accumulated Other Comprehensive Loss		Accumulated Deficit		Non-Controlling Interest		Total Stockholders' Equity	
	Shares	Par Value											
Balance, December 31, 2022	289,014,487	$	2,890	$	1,030,466	$	(89,740)	$	(370,866)	$	704	$	573,454
Net income	—		—		—		—		94,175		—		94,175
Other comprehensive income	—		—		—		1,912		—		—		1,912
Dividends declared	—		—		—		—		(29,224)		—		(29,224)
Shares issued in connection with deferred compensation plan	2,782,181		28		(28)		—		(36,329)		—		(36,329)
Deferred compensation plan elective participant deferrals	—		—		1,651		—		—		—		1,651
Shares issued in connection with executive bonus plan	137,197		2		9,804		—		(4,326)		—		5,480
Shares issued in connection with employee stock purchase plan	153,381		1		4,556		—		(222)		—		4,335
Stock option exercises, net	2,236,827		22		9,678		—		(5,989)		—		3,711
Shares issued for stock grants, net	12,639		—		600		—		—		—		600
Stock-based compensation expense	—		—		28,343		—		—		—		28,343
Shares related to restricted stock, net	376,271		4		(4)		—		(4,336)		—		(4,336)
Balance, June 30, 2023	294,712,983	$	2,947	$	1,085,066	$	(87,828)	$	(357,117)	$	704	$	643,772

See accompanying notes to consolidated financial statements.

BENTLEY SYSTEMS, INCORPORATED
Consolidated Statements of Stockholders' Equity
(in thousands, except share data)
(unaudited)

	Three Months Ended June 30, 2022						
	Class A and Class B Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
	Shares	Par Value				
Balance, March 31, 2022	285,134,093	$ 2,851	$ 957,498	$ (75,324)	$ (427,372)	$ 457,653
Net income	—	—	—	—	55,673	55,673
Other comprehensive loss	—	—	—	(13,807)	—	(13,807)
Dividends declared	—	—	—	—	(8,678)	(8,678)
Shares issued in connection with deferred compensation plan	2,616,044	26	(26)	—	—	—
Deferred compensation plan elective participant deferrals	—	—	2,439	—	—	2,439
Shares issued in connection with executive bonus plan, net	87,692	1	6,896	—	(3,005)	3,892
Stock option exercises, net	653,336	7	3,086	—	(749)	2,344
Acquisition option exercises, net	35,323	1	(1)	—	—	—
Shares issued for stock grants, net	13,632	—	450	—	—	450
Stock-based compensation expense	—	—	10,862	—	—	10,862
Shares related to restricted stock, net	77,040	1	(1)	—	(593)	(593)
Repurchase of Class B Common Stock under approved program	(463,001)	(5)	—	—	(13,237)	(13,242)
Balance, June 30, 2022	288,154,159	$ 2,882	$ 981,203	$ (89,131)	$ (397,961)	$ 496,993

	Six Months Ended June 30, 2022					
	Class A and Class B Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
	Shares	Par Value				
Balance, December 31, 2021	282,526,719	$ 2,825	$ 937,805	$ (91,774)	$ (439,634)	$ 409,222
Net income	—	—	—	—	112,061	112,061
Other comprehensive income	—	—	—	2,643	—	2,643
Dividends declared	—	—	—	—	(17,031)	(17,031)
Shares issued in connection with deferred compensation plan, net	3,425,795	34	(26)	—	(24,254)	(24,246)
Deferred compensation plan elective participant deferrals	—	—	3,108	—	—	3,108
Shares issued in connection with executive bonus plan, net	159,797	2	11,891	—	(5,197)	6,696
Shares issued in connection with employee stock purchase plan, net	109,749	1	4,610	—	(121)	4,490
Stock option exercises, net	2,054,585	21	5,840	—	(8,400)	(2,539)
Acquisition option exercises, net	185,178	2	(2)	—	—	—
Shares issued for stock grants, net	13,632	—	450	—	—	450
Stock-based compensation expense	—	—	17,529	—	—	17,529
Shares related to restricted stock, net	141,705	2	(2)	—	(2,148)	(2,148)
Repurchase of Class B Common Stock under approved program	(463,001)	(5)	—	—	(13,237)	(13,242)
Balance, June 30, 2022	288,154,159	$ 2,882	$ 981,203	$ (89,131)	$ (397,961)	$ 496,993

See accompanying notes to consolidated financial statements.

BENTLEY SYSTEMS, INCORPORATED
Consolidated Statements of Cash Flows
(in thousands)
(unaudited)

	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022
Cash flows from operating activities:		
Net income	$ 94,175	$ 112,061
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	35,304	35,730
Deferred income taxes	(28,935)	(16,806)
Stock-based compensation expense	37,588	32,568
Deferred compensation plan	7,923	(17,297)
Amortization of deferred debt issuance costs	3,646	3,646
Change in fair value of derivative	663	(19,490)
Foreign currency remeasurement (gain) loss	(144)	5,748
Other non-cash items, net	3,530	3,315
Changes in assets and liabilities, net of effect from acquisitions:		
Accounts receivable	49,171	15,581
Prepaid and other assets	(364)	3,325
Accounts payable, accruals, and other liabilities	41,969	25,683
Deferred revenues	(1,792)	(20,292)
Income taxes payable, net of prepaid income taxes	14,085	4,958
Net cash provided by operating activities	256,819	168,730
Cash flows from investing activities:		
Purchases of property and equipment and investment in capitalized software	(11,253)	(6,589)
Proceeds from sale of aircraft	—	2,380
Acquisitions, net of cash acquired	(10,299)	(714,197)
Purchases of investments	(8,200)	(5,561)
Net cash used in investing activities	(29,752)	(723,967)
Cash flows from financing activities:		
Proceeds from credit facilities	288,387	657,981
Payments of credit facilities	(432,739)	(264,107)
Repayments of term loan	(2,500)	(2,500)
Payments of contingent and non-contingent consideration	(2,860)	(5,059)
Payments of dividends	(29,224)	(17,163)
Proceeds from stock purchases under employee stock purchase plan	4,557	4,611
Proceeds from exercise of stock options	9,700	5,861
Payments for shares acquired including shares withheld for taxes	(51,202)	(40,520)
Repurchase of Class B Common Stock under approved program	—	(13,242)
Other financing activities	(95)	(89)
Net cash (used in) provided by financing activities	(215,976)	325,773
Effect of exchange rate changes on cash and cash equivalents	(59)	(6,462)
Increase (decrease) in cash and cash equivalents	11,032	(235,926)
Cash and cash equivalents, beginning of year	71,684	329,337
Cash and cash equivalents, end of period	$ 82,716	$ 93,411

BENTLEY SYSTEMS, INCORPORATED
Consolidated Statements of Cash Flows
(in thousands)
(unaudited)

	Six Months Ended June 30,	
	2023	**2022**
Supplemental information:		
Cash paid for income taxes	$ 18,167	$ 11,606
Income tax refunds	168	1,076
Interest paid	19,382	10,528
Non-cash investing and financing activities:		
Cost method investment	3,500	—
Deferred, non-contingent consideration, net	525	—
Share-settled executive bonus plan awards	9,806	11,893
Deferred compensation plan elective participant deferrals	1,651	3,108

See accompanying notes to consolidated financial statements.

Note 1: Basis of Presentation

The accompanying unaudited consolidated financial statements include the accounts of Bentley Systems, Incorporated and its wholly-owned subsidiaries ("Bentley Systems, Incorporated" or the "Company"), and have been prepared in accordance with United States generally accepted accounting principles ("U.S. GAAP") and in accordance with the rules and regulations of the United States Securities and Exchange Commission ("SEC") regarding interim financial reporting. Accordingly, they do not include all the information and notes required by U.S. GAAP for annual financial statements. These unaudited consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto included in the Company's 2022 Annual Report on Form 10-K. In management's opinion, the accompanying unaudited consolidated financial statements contain all adjustments (consisting of normal, recurring and non-recurring adjustments) that were considered necessary for the fair statement of the Company's financial position, results of operations, and cash flows as of the dates and for the periods indicated. The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect reported amounts in the financial statements and accompanying notes. Actual results could differ materially from those estimates. The December 31, 2022 consolidated balance sheet included herein is derived from the Company's audited consolidated financial statements.

Certain reclassifications of prior period amounts have been made to conform to the current period presentation. For the three and six months ended June 30, 2023, payments related to the Company's interest rate swap were recognized in *Other income (expense), net* in the consolidated statements of operations and the corresponding prior period amounts, which were previously recognized in *Interest expense, net*, were reclassified to conform to the current period presentation. For the three and six months ended June 30, 2022, the amounts reclassified were not material, and *Income before income taxes* and *Net income* in the consolidated statements of operations did not change as a result of these reclassifications.

Note 2: Recent Accounting Pronouncements

Recently Adopted Accounting Guidance

In March 2020, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting* ("ASU 2020-04"), which provides optional expedients and exceptions for applying U.S. GAAP to contracts, hedging relationships, and other transactions affected by reference rate reform if certain criteria are met. ASU 2020-04 applies only to contracts, hedging relationships, and other transactions that reference the London Interbank Offered Rate ("LIBOR") or another reference rate expected to be discontinued because of reference rate reform between March 12, 2020 and December 31, 2022. In December 2022, the FASB issued ASU No. 2022-06, *Reference Rate Reform (Topic 848): Deferral of the Sunset Date of Topic 848*, which provides optional guidance to ease the potential burden in accounting for (or recognizing the effects of) reference rate reform on financial reporting by extending the sunset date of Topic 848 to December 31, 2024. The expedients and exceptions provided by these ASUs do not apply to contract modifications made and hedging relationships entered into or evaluated after December 31, 2024, except for hedging relationships existing as of December 31, 2024, that an entity has elected certain optional expedients for and that are retained through the end of the hedging relationship. The Company adopted these ASUs during the second quarter of 2023 (see Note 10) and the adoption did not have a material impact on the Company's consolidated financial statements.

Note 3: Revenue from Contracts with Customers

Disaggregation of Revenues

The Company's revenues consist of the following:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Subscriptions:				
Enterprise subscriptions [1]	$ 103,674	$ 81,593	$ 207,578	$ 163,420
SELECT subscriptions	64,085	66,579	127,428	133,177
Term license subscriptions	91,484	84,019	202,082	176,827
Subscriptions	259,243	232,191	537,088	473,424
Perpetual licenses	11,718	11,548	21,265	21,753
Subscriptions and licenses	270,961	243,739	558,353	495,177
Services:				
Recurring	4,949	4,173	9,127	8,874
Other	20,839	20,373	43,680	39,751
Services	25,788	24,546	52,807	48,625
Total revenues	$ 296,749	$ 268,285	$ 611,160	$ 543,802

(1) Enterprise subscriptions includes revenue attributable to Enterprise 365 ("E365") subscriptions of $99,248 and $72,905 for the three months ended June 30, 2023 and 2022, respectively, and $193,579 and $141,503 for the six months ended June 30, 2023 and 2022, respectively.

The Company recognizes perpetual licenses and the term license component of subscriptions as revenue when either the licenses are delivered or at the start of the subscription term. For the three months ended June 30, 2023 and 2022, the Company recognized $138,822 and $129,872 of license related revenues, respectively, of which $127,104 and $118,324, respectively, were attributable to the term license component of the Company's subscription-based commercial offerings recorded in *Subscriptions* in the consolidated statements of operations. For the six months ended June 30, 2023 and 2022, the Company recognized $296,846 and $255,097 of license related revenues, respectively, of which $275,581 and $233,344, respectively, were attributable to the term license component of the Company's subscription-based commercial offerings recorded in *Subscriptions* in the consolidated statements of operations.

The Company derived 7% of its total revenues through channel partners for the three and six months ended June 30, 2023 and 2022.

Revenue from external customers is attributed to individual countries based upon the location of the customer. Revenues by geographic region are as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Americas [1]	$ 158,836	$ 144,359	$ 327,181	$ 298,619
Europe, the Middle East, and Africa (“EMEA”)	83,444	74,800	176,276	152,280
Asia-Pacific (“APAC”)	54,469	49,126	107,703	92,903
Total revenues	$ 296,749	$ 268,285	$ 611,160	$ 543,802

(1) Americas includes the United States (“U.S.”), Canada, and Latin America (including the Caribbean). Revenue attributable to the U.S. totaled $127,847 and $108,456 for the three months ended June 30, 2023 and 2022, respectively, and $255,297 and $224,589 for the six months ended June 30, 2023 and 2022, respectively.

Contract Assets and Contract Liabilities

	June 30, 2023	December 31, 2022
Contract assets	$ 451	$ 575
Deferred revenues	247,755	243,073

As of June 30, 2023 and December 31, 2022, the Company’s contract assets relate to performance obligations completed in advance of the right to invoice and are included in *Prepaid and other current assets* in the consolidated balance sheets. Contract assets were not impaired as of June 30, 2023 and December 31, 2022.

Deferred revenues consist of billings made or payments received in advance of revenue recognition from subscriptions and services. The timing of revenue recognition may differ from the timing of billings to users.

For the six months ended June 30, 2023, $149,247 of revenues that were included in the December 31, 2022 deferred revenues balance were recognized. There were additional deferrals of $151,528 for the six months ended June 30, 2023, which were primarily related to new billings and acquisitions. For the six months ended June 30, 2022, $139,873 of revenues that were included in the December 31, 2021 deferred revenues balance were recognized. There were additional deferrals of $131,051 for the six months ended June 30, 2022, which were primarily related to new billings and acquisitions.

As of June 30, 2023 and December 31, 2022, the Company has deferred $17,965 and $17,338, respectively, related to portfolio balancing exchange rights which is included in *Deferred revenues* in the consolidated balance sheets.

Remaining Performance Obligations

The Company’s contracts with customers include amounts allocated to performance obligations that will be satisfied at a later date. As of June 30, 2023, amounts allocated to these remaining performance obligations are $247,755, of which the Company expects to recognize approximately 93% over the next 12 months with the remaining amount thereafter.

Note 4: Acquisitions

The aggregate details of the Company's acquisition activity are as follows:

	Acquisitions Completed during Six Months Ended June 30, 2023	
	2023	2022
Number of acquisitions	1	2
Cash paid at closing (1)	$ 10,299	$ 733,343
Cash acquired	—	(19,146)
Net cash paid	$ 10,299	$ 714,197

(1) Of the cash paid at closing for the six months ended June 30, 2022, $3,000 was deposited into an escrow account to secure any potential indemnification and other obligations of the seller.

On January 31, 2022, the Company completed the acquisition of Power Line Systems ("PLS"), a leader in software for the design of overhead electric power transmission lines and their structures, for $695,968 in cash, net of cash acquired. The operating results of the acquired businesses were not material, individually or in the aggregate, to the Company's consolidated statements of operations.

The fair value of the contingent consideration from acquisitions is included in the consolidated balance sheets as follows:

	June 30, 2023	December 31, 2022
Accruals and other current liabilities	$ 3	$ 1,196
Contingent consideration from acquisitions	$ 3	$ 1,196

The fair value of non-contingent consideration from acquisitions is included in the consolidated balance sheets as follows:

	June 30, 2023	December 31, 2022
Accruals and other current liabilities	$ 3,662	$ 2,434
Other liabilities	625	2,977
Non-contingent consideration from acquisitions	$ 4,287	$ 5,411

The operating results of the acquired businesses are included in the Company's consolidated financial statements from the closing date of each respective acquisition. The purchase price for each acquisition has been allocated to the net tangible and intangible assets and liabilities based on their estimated fair values at the respective acquisition date.

The Company is in the process of finalizing the purchase accounting for one acquisition completed during the six months ended June 30, 2023 and one acquisition completed during the year ended December 31, 2022. Identifiable assets acquired and liabilities assumed were provisionally recorded at their estimated fair values on the respective acquisition date. The initial accounting for these business combinations is not complete because the evaluation necessary to assess the fair values of certain net assets acquired is still in process. The provisional amounts are subject to revision until the evaluations are completed to the extent that additional information is obtained about the facts and circumstances that existed as of the acquisition date. The allocation of the purchase price may be modified from the date of the acquisition as more information is obtained about the fair values of assets acquired and liabilities assumed, however, such measurement period cannot exceed one year.

Acquisition costs are expensed as incurred and are recorded in *General and administrative* in the consolidated statements of operations. For the three months ended June 30, 2023 and 2022, the Company's acquisition expenses were $113 and $677, respectively, and $5,298 and $11,251 for the six months ended June 30, 2023 and 2022, respectively, which include costs related to legal, accounting, valuation, insurance, general administrative, and other consulting and transaction fees. For the three and six months ended June 30, 2022, $26 and $9,799, respectively, of the Company's acquisition expenses related to the acquisition of PLS.

The following summarizes the fair values of the assets acquired and liabilities assumed, as well as the weighted average useful lives assigned to acquired intangible assets at the respective date of each acquisition (including contingent consideration):

	Acquisitions Completed in	
	Six Months Ended June 30, 2023	**Year Ended December 31, 2022**
Consideration:		
Cash paid at closing	$ 10,299	$ 763,228
Contingent consideration	—	1,390
Deferred, non-contingent consideration, net	525	749
Other	56	(269)
Total consideration	$ 10,880	$ 765,098
Assets acquired and liabilities assumed:		
Cash	$ —	$ 20,221
Accounts receivable and other current assets	1,483	8,890
Operating lease right-of-use assets	345	1,237
Property and equipment	—	1,316
Other assets	—	7
Software and technology (weighted average useful life of 3 and 5 years, respectively)	1,300	10,608
Customer relationships (weighted average useful life of 6 and 10 years, respectively)	3,900	82,278
Trademarks (weighted average useful life of 5 and 8 years, respectively)	800	6,972
Total identifiable assets acquired excluding goodwill	7,828	131,529
Accruals and other current liabilities	—	(4,079)
Deferred revenues	(3,951)	(14,176)
Operating lease liabilities	(345)	(1,237)
Deferred income taxes	—	(5,745)
Total liabilities assumed	(4,296)	(25,237)
Net identifiable assets acquired excluding goodwill	3,532	106,292
Goodwill	7,348	658,806
Net assets acquired	$ 10,880	$ 765,098

The fair values of the working capital, other assets (liabilities), and property and equipment approximated their respective carrying values as of the acquisition date.

Deferred revenues were determined in accordance with the Company's revenue recognition policies.

The fair values of the intangible assets were primarily determined using the income approach. When applying the income approach, indications of fair values were developed by discounting future net cash flows to their present values at market-based rates of return. The cash flows were based on estimates used to price the acquisitions and the discount rates applied were benchmarked with reference to the implied rate of return from the Company's pricing model and the weighted average cost of capital.

Goodwill recorded in connection with the acquisitions was attributable to synergies expected to arise from cost saving opportunities, as well as future expected cash flows. The Company expects $7,289 of the goodwill recorded relating to the 2023 acquisition will be deductible for income tax purposes.

Note 5: Property and Equipment, Net

Property and equipment, net consist of the following:

	June 30, 2023	December 31, 2022
Land	$ 2,811	$ 2,811
Building and improvements	35,941	35,717
Computer equipment and software	61,452	54,636
Furniture, fixtures, and equipment	14,918	14,600
Aircraft	2,038	2,038
Other	151	156
Property and equipment, at cost	117,311	109,958
Less: Accumulated depreciation	(81,791)	(77,707)
Total property and equipment, net	$ 35,520	$ 32,251

Depreciation expense was $2,910 and $2,922 for the three months ended June 30, 2023 and 2022, respectively, and $5,634 and $5,412 for the six months ended June 30, 2023 and 2022, respectively.

Related Party Equipment Sale

In January 2022, the Audit Committee of the Company's Board of Directors authorized the Company to sell 50% of its interest in the Company's aircraft at fair market value to an entity controlled by the Company's Chief Executive Officer. The transaction was completed on February 1, 2022 for $2,380 and resulted in a gain of $2,029, which was recorded in *Other income, net* in the consolidated statements of operations for the six months ended June 30, 2022 (see Note 20). Subsequent to the transaction, ongoing operating and fixed costs of the aircraft are shared on a proportional use basis subject to a cost-sharing agreement. Such costs were not material during the six months ended June 30, 2023 and 2022. The Company determined this transaction was with a related party.

Note 6: Goodwill and Other Intangible Assets

The changes in the carrying amount of goodwill are as follows:

Balance, December 31, 2022	$ 2,237,184
Acquisitions	7,348
Foreign currency translation adjustments	8,944
Other adjustments	(644)
Balance, June 30, 2023	$ 2,252,832

Details of intangible assets other than goodwill are as follows:

		June 30, 2023			December 31, 2022		
	Estimated Useful Life	Gross Carrying Amount	Accumulated Amortization	Net Book Value	Gross Carrying Amount	Accumulated Amortization	Net Book Value
Intangible assets subject to amortization:							
Software and technology	3-5 years	$ 93,212	$ (57,955)	$ 35,257	$ 92,390	$ (51,938)	$ 40,452
Customer relationships	3-10 years	325,196	(129,116)	196,080	323,164	(114,387)	208,777
Trademarks	3-10 years	70,607	(30,414)	40,193	69,803	(26,904)	42,899
Non-compete agreements	5 years	350	(241)	109	350	(207)	143
Total intangible assets		$ 489,365	$ (217,726)	$ 271,639	$ 485,707	$ (193,436)	$ 292,271

The aggregate amortization expense for purchased intangible assets with finite lives was reflected in the Company's consolidated statements of operations as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Cost of subscriptions and licenses	$ 3,123	$ 3,154	$ 6,310	$ 6,176
Amortization of purchased intangibles	9,502	10,517	20,050	20,423
Total amortization expense	$ 12,625	$ 13,671	$ 26,360	$ 26,599

Note 7: Investments

Investments consist of the following:

	June 30, 2023	December 31, 2022
Cost method investments	$ 26,906	$ 22,174
Equity method investments	91	96
Total investments	$ 26,997	$ 22,270

Cost Method Investments

Through its *iTwin Ventures* initiative, the Company invests in technology development companies, generally in the form of equity interests or convertible notes. In March 2023, the Company acquired an equity interest in Worldsensing, a leading global connectivity hardware platform company for infrastructure monitoring, via contribution of its sensemetrics' Thread connectivity device business (the "Thread business") and cash. The non-cash contribution of the Thread business resulted in an insignificant gain, which was recorded in *Other income, net* in the consolidated statements of operations for the six months ended June 30, 2023 (see Note 20). In July 2022, the Company acquired an equity interest in Teralytics Holdings AG, a global platform company for human mobility analysis.

During the second quarter of 2023, the Company recognized impairment charges of $7,318 to write-down certain cost method investments to their fair value primarily as a result of the investees' decline in operating performance and the overall decline in the venture investment valuation environment. The impairment charges were recorded in *Other income, net* in the consolidated statements of operations for the three and six months ended June 30, 2023 (see Note 20).

During the six months ended June 30, 2023, the Company invested a total of $11,700, including $8,928 of cash and non-cash for our investment in Worldsensing. During the six months ended June 30, 2022, the Company invested a total of $4,361. As of June 30, 2023, our investment balance in Worldsensing and Teralytics Holdings AG was $8,928 and $7,270, respectively. As of December 31, 2022, our investment balance in Teralytics Holdings AG was $11,130.

Note 8: Leases

The Company's operating leases consist of office facilities, office equipment, and automobiles. As of June 30, 2023, the Company's leases have remaining terms of less than one year to ten years, some of which include one or more options to renew, with renewal terms from one year to ten years and some of which include options to terminate the leases from less than one year to five years.

The components of operating lease cost reflected in the consolidated statements of operations were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Operating lease cost (1)	$ 4,534	$ 5,195	$ 9,162	$ 10,948
Variable lease cost	1,146	968	2,348	2,241
Short-term lease cost	—	5	—	10
Total operating lease cost	$ 5,680	$ 6,168	$ 11,510	$ 13,199

(1) Operating lease cost includes rent cost related to operating leases for office facilities of $4,329 and $5,014 for the three months ended June 30, 2023 and 2022, respectively, and $8,746 and $10,567 for the six months ended June 30, 2023 and 2022, respectively.

Supplemental operating cash flow and other information related to leases was as follows:

	Six Months Ended June 30,	
	2023	2022
Cash paid for operating leases included in operating cash flows	$ 9,319	$ 10,092
Right-of-use assets obtained in exchange for new operating lease liabilities (1)	$ 11,212	$ 5,091

(1) Right-of-use assets obtained in exchange for new operating lease liabilities does not include the impact from acquisitions of $345 and $1,237 for the six months ended June 30, 2023 and 2022, respectively.

The weighted average remaining lease term for operating leases was 4.7 years and 3.9 years as of June 30, 2023 and December 31, 2022, respectively. The weighted average discount rate was 4.3% and 3.4% as of June 30, 2023 and December 31, 2022, respectively.

As of June 30, 2023, the Company had additional minimum operating lease payments of $1,080 for executed leases that have not yet commenced, primarily for office locations.

Note 9: Accruals and Other Current Liabilities

Accruals and other current liabilities consist of the following:

	June 30, 2023	December 31, 2022
Cloud Services Subscription ("CSS") deposits	$ 260,118	$ 201,082
Accrued benefits	40,830	35,493
Accrued compensation	28,446	40,296
Due to customers	14,686	13,720
Accrued acquisition stay bonus	5,919	9,135
Employee stock purchase plan contributions	5,488	5,230
Accrued indirect taxes	4,730	9,766
Accrued professional fees	3,896	4,984
Non-contingent consideration from acquisitions	3,662	2,434
Accrued cloud provisioning costs	2,375	4,224
Deferred compensation plan liabilities	2,238	2,067
Contingent consideration from acquisitions	3	1,196
Other accrued and current liabilities	26,492	32,421
Total accruals and other current liabilities	$ 398,883	$ 362,048

Note 10: Long-Term Debt

Long-term debt consists of the following:

	June 30, 2023	December 31, 2022
Credit facility:		
Revolving loan facility due November 2025	$ 201,245	$ 345,597
Term loan due November 2025	192,500	195,000
Convertible senior notes due January 2026 (the "2026 Notes")	687,830	687,830
Convertible senior notes due July 2027 (the "2027 Notes")	575,000	575,000
Unamortized debt issuance costs	(19,592)	(22,731)
Total debt	1,636,983	1,780,696
Less: Current portion of long-term debt	(7,500)	(5,000)
Long-term debt	$ 1,629,483	$ 1,775,696

Credit Facility

The Company is party to a Credit Agreement dated December 19, 2017 (as amended from time to time), which provides for an $850,000 senior secured revolving loan facility that matures on November 15, 2025 (the "Credit Facility"). The Credit Facility also provides up to $50,000 of letters of credit and other borrowings subject to availability, including an $85,000 U.S. dollar swingline sub-facility and a $200,000 incremental "accordion" sub-facility. Debt issuance costs are amortized to interest expense through the maturity date.

Under the Credit Facility, the Company has a $200,000 senior secured term loan with a maturity of November 15, 2025 (the "Term Loan"). The Term Loan requires principal repayment at the end of each calendar quarter. Beginning with March 31, 2022 and ending with December 31, 2023, the Company is required to repay $1,250 per quarter. Beginning with March 31, 2024 and ending with the last such date prior to the maturity date, the Company is required to repay $2,500 per quarter.

The Company had $150 of letters of credit and surety bonds outstanding as of June 30, 2023 and December 31, 2022 under the Credit Facility. As of June 30, 2023 and December 31, 2022, the Company had $648,605 and $504,253, respectively, available under the Credit Facility.

Effective June 23, 2023, the Company amended the Credit Facility to replace the referenced interest rate based on LIBOR with the Secured Overnight Financing Rate ("SOFR").

Revolving loan borrowings under the Credit Facility bear interest at variable rates that reset every one, three, or six months depending on the period selected by the Company. Under the Term SOFR elections, revolving loan borrowings bear an interest rate of the applicable term SOFR rate plus 10 basis points ("bps"), plus a spread ranging from 125 bps to 225 bps as determined by the Company's net leverage ratio. Under the non-Term SOFR elections, revolving loan borrowings bear a base interest rate of the highest of (i) the prime rate, (ii) the overnight bank funding effective rate plus 50 bps, or (iii) the applicable term SOFR rate plus 10 bps, plus a spread ranging from 25 bps to 125 bps as determined by the Company's net leverage ratio.

Swingline borrowings under the Credit Facility bear interest that resets daily. Interest on U.S. dollar swingline borrowings bear an interest rate of the daily simple SOFR rate plus 3.5 bps, plus a spread ranging from 125 bps to 225 bps as determined by the Company's net leverage ratio. The Company cannot make optional currency swingline borrowings without the consent of the applicable swingline lender.

Term loan borrowings under the Credit Facility bear interest at variable rates that reset every one, three, or six months depending on the period selected by the Company. Under the Term SOFR elections, term loan borrowings bear an interest rate of the applicable term SOFR rate plus 10 bps, plus a spread ranging from 100 bps to 200 bps as determined by the Company's net leverage ratio. Under the non-Term SOFR elections, term loan borrowings bear a base interest rate of the highest of (i) the prime rate, (ii) the overnight bank funding effective rate plus 50 bps, or (iii) the applicable term SOFR rate plus 10 bps, plus a spread ranging from 0 bps to 100 bps as determined by the Company's net leverage ratio.

In addition, a commitment fee for the unused Credit Facility ranges from 20 bps to 30 bps as determined by the Company's net leverage ratio.

Borrowings under the Credit Facility are guaranteed by all of the Company's material first tier domestic subsidiaries and are secured by a first priority security interest in substantially all of the Company's and the guarantors' U.S. assets and 65% of the stock of their directly owned foreign subsidiaries.

The agreement governing the Credit Facility contains customary positive and negative covenants, including restrictions on our ability to pay dividends and make other restricted payments, as well as events of default, including, without limitation, payment defaults, breaches of representations and warranties, covenants defaults, cross-defaults to certain other indebtedness in excess of $50,000, certain events of bankruptcy and insolvency, judgment defaults in excess of $10,000, failure of any security document supporting the Credit Facility to be in full force and effect, and a change of control. The Credit Facility also contains customary financial covenants, including maximum net leverage ratio. As of June 30, 2023 and December 31, 2022, the Company was in compliance with all covenants in its Credit Facility.

Voluntary prepayments of amounts outstanding under the Credit Facility, in whole or in part, are permitted at any time, so long as the Company gives notice as required by the Credit Facility. However, if prepayment is made with respect to a SOFR-based loan and the prepayment is made on a date other than an interest payment date, the Company is subject to customary breakage costs.

Convertible Senior Notes

As of June 30, 2023 and December 31, 2022, the Company was in compliance with all covenants in the 2026 Notes and 2027 Notes, and none of the conditions of the 2026 Notes or 2027 Notes to early convert had been met.

Derivative Arrangements

The Company records derivative instruments as an asset or liability measured at fair value and depending on the nature of the hedge, the corresponding changes in the fair value of these instruments are recorded in the consolidated statements of operations or comprehensive income. If the derivative is determined to be a hedge, changes in the fair value of the derivative are offset against the change in the fair value of the hedged assets or liabilities through the consolidated statements of operations or recognized in *Other comprehensive income (loss), net of taxes* until the hedged item is recognized in the consolidated statements of operations. The ineffective portion of a derivative's change in fair value is recognized in earnings. Also, changes in the entire fair value of a derivative that is not designated as a hedge are recognized in earnings.

Effective on April 2, 2020, the Company entered into an interest rate swap with a notional amount of $200,000 and a ten-year term to reduce the interest rate risk associated with the Credit Facility. Effective on June 26, 2023, the Company amended the interest rate swap agreement to replace the LIBOR rate to SOFR under the ISDA Fallback Protocols included within the agreement. Subsequent to the amendment, the Company will continue to pay a fixed interest rate of 72.9 bps, and will receive a floating interest rate equal to daily SOFR plus an ARRC spread adjustment of 11.448 bps. The interest rate swap is not designated as a hedging instrument for accounting purposes. The Company accounts for the interest rate swap as either an asset or a liability on the consolidated balance sheets and carries the derivative at fair value (see Note 17). Gain (loss) from the change in fair value and payments related to the interest rate swap are recognized in *Other income (expense), net* in the consolidated statements of operations (see Note 20). The bank counterparty to the derivative potentially exposes the Company to credit-related losses in the event of nonperformance. To mitigate that risk, the Company only contracts with counterparties who meet the Company's minimum requirements under its counterparty risk assessment process. The Company monitors counterparty risk on at least a quarterly basis and adjusts its exposure as necessary. The Company does not enter into derivative instrument transactions for trading or speculative purposes.

Interest Expense, Net

Interest expense, net consists of the following:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Contractual interest expense	$ (9,364)	$ (5,700)	$ (18,674)	$ (9,747)
Amortization of deferred debt issuance costs	(1,823)	(1,868)	(3,646)	(3,646)
Other interest income (expense)	1,193	(153)	1,005	(1,158)
Interest income	510	82	739	164
Interest expense, net	$ (9,484)	$ (7,639)	$ (20,576)	$ (14,387)

The weighted average interest rate on borrowings under the Credit Facility were 7.14% and 2.89% for the three months ended June 30, 2023 and 2022, respectively, and 6.89% and 2.62% for the six months ended June 30, 2023 and 2022, respectively.

Note 11: Executive Bonus Plan

For the three months ended June 30, 2023 and 2022, the incentive compensation, including cash payments, election to receive shares of fully vested Class B Common Stock, and deferred compensation to plan participants, recognized under the amended and restated Bentley Systems, Incorporated Bonus Pool Plan (the "Bonus Plan") (net of all applicable holdbacks) was $4,297 and $6,811, respectively, and $12,245 and $16,530 for the six months ended June 30, 2023 and 2022, respectively.

Note 12: Retirement Plans

Deferred Compensation Plan

Deferred compensation plan expense (income) was $3,777 and $(12,159) for the three months ended June 30, 2023 and 2022, respectively, and $7,923 and $(17,297) for the six months ended June 30, 2023 and 2022, respectively.

For the three months ended June 30, 2023 and 2022, elective participant deferrals into the Company’s unfunded amended and restated Bentley Systems, Incorporated Nonqualified Deferred Compensation Plan (the “DCP”) were $118 and $2,439, respectively, and $1,651 and $3,108 for the six months ended June 30, 2023 and 2022, respectively. No discretionary contributions were made to the DCP during the three and six months ended June 30, 2023 and 2022. As of June 30, 2023 and December 31, 2022, phantom shares of the Company’s Class B Common Stock issuable by the DCP were 17,995,119 and 21,587,831, respectively.

The total liabilities related to the DCP is included in the consolidated balance sheets as follows:

	June 30, 2023	December 31, 2022
Accruals and other current liabilities	$ 2,238	$ 2,067
Deferred compensation plan liabilities	82,641	77,014
Total DCP liabilities	$ 84,879	$ 79,081

Note 13: Common Stock

BSY Stock Repurchase Program

On May 11, 2022, the Company announced that its Board of Directors approved the BSY Stock Repurchase Program (the “Repurchase Program”) authorizing the Company to repurchase up to $200,000 of the Company’s Class B Common Stock through June 30, 2024. On December 14, 2022, the Company’s Board of Directors amended the Repurchase Program to allow the Company also to repurchase its outstanding convertible senior notes. This additional authorization did not increase the overall dollar limit of the Repurchase Program. The shares and notes proposed to be acquired in the Repurchase Program may be repurchased from time to time in open market transactions, through privately negotiated transactions, or by other means in accordance with federal securities laws. The Company intends to fund repurchases from available working capital and cash provided by operating activities. The timing, as well as the number and value of shares and/or notes repurchased under the Repurchase Program, will be determined by the Company at its discretion and will depend on a variety of factors, including management’s assessment of the intrinsic value of the Company’s shares, the market price of the Company’s Class B Common Stock and outstanding notes, general market and economic conditions, available liquidity, compliance with the Company’s debt and other agreements, and applicable legal requirements. The exact number of shares and/or notes to be repurchased by the Company is not guaranteed, and the Repurchase Program may be suspended, modified, or discontinued at any time without prior notice. The Company did not repurchase shares under the Repurchase Program for the six months ended June 30, 2023. For the six months ended June 30, 2022, the Company repurchased 463,001 shares for $13,242 under the Repurchase Program. As of June 30, 2023, $169,752 was available under the Company’s Board of Directors authorization for future repurchases of Class B Common Stock and/or outstanding convertible senior notes under the Repurchase Program.

Common Stock Issuances, Sales, and Repurchases

For the six months ended June 30, 2023, the Company issued 2,236,827 shares of Class B Common Stock to colleagues who exercised their stock options, net of 221,078 shares withheld at exercise to pay for the cost of the stock options, as well as for $5,989 of applicable income tax withholdings. The Company received $9,700 in proceeds from the exercise of stock options. For the six months ended June 30, 2022, the Company issued 2,054,585 shares of Class B Common Stock to colleagues who exercised their stock options, net of 355,063 shares withheld at exercise to pay for the cost of the stock options, as well as for $8,400 of applicable income tax withholdings. The Company received $5,861 in proceeds from the exercise of stock options.

For the six months ended June 30, 2022, the Company issued 185,178 shares of Class B Common Stock related to the exercise of acquisition options, net of 714,822 shares withheld at exercise to pay for the cost of the options. The Company did not receive any proceeds from the exercise of these options.

For the six months ended June 30, 2023 and 2022, the Company issued 137,197 and 159,797 shares of Class B Common Stock, respectively, in connection with Bonus Plan incentive compensation, net of shares withheld. Of the total 245,571 shares awarded for the six months ended June 30, 2023, 108,374 shares were sold back to the Company in the same period to pay for applicable income tax withholdings of $4,326. Of the total 283,913 shares awarded for the six months ended June 30, 2022, 124,116 shares were sold back to the Company in the same period to pay for applicable income tax withholdings of $5,197.

For the six months ended June 30, 2023 and 2022, the Company issued 2,782,181 and 3,425,795 shares of Class B Common Stock, respectively, to DCP participants in connection with distributions from the plan. The distribution in shares for the six months ended June 30, 2023 totaled 3,677,405 shares of which 895,224 shares were sold back to the Company in the same period to pay for applicable income tax withholdings of $36,329. The distribution in shares for the six months ended June 30, 2022 totaled 3,926,105 shares of which 500,310 shares were sold back to the Company in the same period to pay for applicable income tax withholdings of $24,246.

Dividends

The Company declared cash dividends during the periods presented as follows:

	Dividend Per Share	Amount
2023:		
Second quarter	$ 0.05	$ 14,702
First quarter	0.05	14,522
2022:		
Second quarter	$ 0.03	$ 8,678
First quarter	0.03	8,353

Dividends Declared Subsequent to June 30, 2023

In July 2023, the Company’s Board of Directors approved cash dividends of $0.05 per share payable on August 24, 2023 to all stockholders of record of Class A and Class B Common Stock as of the close of business on August 15, 2023.

Global Employee Stock Purchase Plan

During the six months ended June 30, 2023, colleagues who elected to participate in the Bentley Systems, Incorporated Global Employee Stock Purchase Plan (the “ESPP”) purchased a total of 153,381 shares of Class B Common Stock, net of shares withheld, resulting in cash proceeds to the Company of $4,557. Of the total 159,377 shares purchased, 5,996 shares were sold back to the Company to pay for applicable income tax withholdings of $222. During the six months ended June 30, 2022, colleagues who elected to participate in the ESPP purchased a total of 109,749 shares of Class B Common Stock, net of shares withheld, resulting in cash proceeds to the Company of $4,611. Of the total 112,249 shares purchased, 2,500 shares were sold back to the Company to pay for applicable income tax withholdings of $121. As of June 30, 2023 and December 31, 2022, $5,488 and $5,230 of ESPP withholdings via colleague payroll deduction were recorded in *Accruals and other current liabilities* in the consolidated balance sheets, respectively. As of June 30, 2023, shares of Class B Common Stock available for future issuance under the ESPP were 24,434,497.

Note 14: Accumulated Other Comprehensive Loss

Accumulated other comprehensive loss consists of the following during the three months ended June 30, 2023 and 2022:

	Foreign Currency Translation	Actuarial (Loss) Gain on Retirement Plan	Total
Balance, March 31, 2023	$ (89,068)	$ (306)	$ (89,374)
Other comprehensive income, before taxes	1,538	9	1,547
Tax expense	—	(1)	(1)
Other comprehensive income, net of taxes	1,538	8	1,546
Balance, June 30, 2023	$ (87,530)	$ (298)	$ (87,828)

	Foreign Currency Translation	Actuarial (Loss) Gain on Retirement Plan	Total
Balance, March 31, 2022	$ (74,430)	$ (894)	$ (75,324)
Other comprehensive (loss) income, before taxes	(13,820)	18	(13,802)
Tax expense	—	(5)	(5)
Other comprehensive (loss) income, net of taxes	(13,820)	13	(13,807)
Balance, June 30, 2022	$ (88,250)	$ (881)	$ (89,131)

Accumulated other comprehensive loss consists of the following during the six months ended June 30, 2023 and 2022:

	Foreign Currency Translation	Actuarial (Loss) Gain on Retirement Plan	Total
Balance, December 31, 2022	$ (89,408)	$ (332)	$ (89,740)
Other comprehensive income, before taxes	1,878	41	1,919
Tax expense	—	(7)	(7)
Other comprehensive income, net of taxes	1,878	34	1,912
Balance, June 30, 2023	$ (87,530)	$ (298)	$ (87,828)

	Foreign Currency Translation	Actuarial (Loss) Gain on Retirement Plan	Total
Balance, December 31, 2021	$ (90,867)	$ (907)	$ (91,774)
Other comprehensive income, before taxes	2,617	36	2,653
Tax expense	—	(10)	(10)
Other comprehensive income, net of taxes	2,617	26	2,643
Balance, June 30, 2022	$ (88,250)	$ (881)	$ (89,131)

Note 15: Stock-Based Compensation

Total stock-based compensation expense consists of the following:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Restricted stock and restricted stock units (“RSUs”) expense	$ 13,530	$ 9,197	$ 27,453	$ 14,562
Bonus Plan expense (see Note 11)	3,336	5,978	7,882	14,139
ESPP expense (see Note 13)	600	1,149	1,175	1,829
Stock option expense	—	611	343	1,367
Stock grants expense	600	450	600	450
DCP elective participant deferrals expense (1) (see Note 12)	38	84	135	221
Total stock-based compensation expense (2)	$ 18,104	$ 17,469	$ 37,588	$ 32,568

(1) DCP elective participant deferrals expense excludes deferred incentive bonus payable pursuant to the Bonus Plan.

(2) As of June 30, 2023 and December 31, 2022, $4,338 and $7,300 remained in *Accruals and other current liabilities* in the consolidated balance sheets, respectively.

Total stock-based compensation expense is included in the consolidated statements of operations as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Cost of subscriptions and licenses	$ 1,132	$ 785	$ 2,166	$ 1,170
Cost of services	707	564	1,714	947
Research and development	4,424	5,544	9,710	10,939
Selling and marketing	2,943	2,189	5,813	3,643
General and administrative	8,898	8,387	18,185	15,869
Total stock-based compensation expense	$ 18,104	$ 17,469	$ 37,588	$ 32,568

Stock-based compensation expense is measured at the grant date fair value of the award and is recognized ratably over the requisite service period, which is generally the vesting period. Specifically for performance-based RSUs, stock-based compensation expense is measured at the grant date fair value of the award and is recognized ratably over the requisite service period based on the number of awards expected to vest at each reporting date. The Company accounts for forfeitures of equity awards as those forfeitures occur.

Stock Options

The following is a summary of stock option activity and related information under the Company's applicable equity incentive plans:

	Stock Options	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value
Outstanding, December 31, 2022	3,794,515	$ 5.57		
Exercised	(2,457,905)	5.48		
Forfeited and expired	(7,500)	5.60		
Outstanding, June 30, 2023	1,329,110	$ 5.74	0.7	$ 64,449
Exercisable, June 30, 2023	1,329,110	$ 5.74	0.7	$ 64,449

For the six months ended June 30, 2023 and 2022, the Company received cash proceeds of $9,700 and $5,861, respectively, related to the exercise of stock options. The total intrinsic value of stock options exercised for the six months ended June 30, 2023 and 2022 was $93,656 and $82,288, respectively.

As of June 30, 2023, there was no remaining unrecognized compensation expense related to unvested stock options.

Restricted Stock and RSUs

Under the equity incentive plans, the Company may grant both time-based and performance-based shares of restricted Class B Common Stock and RSUs to eligible colleagues. Time-based awards generally vest ratably on each of the first four anniversaries of the grant date. Performance-based awards vesting is determined by the achievement of certain business profitability and growth targets, including growth in annualized recurring revenues ("ARR"), and actual bookings for perpetual licenses and non-recurring services, among others. Performance targets are generally set for performance periods of one to three years.

The following is a summary of unvested restricted stock and RSU activity and related information under the Company's applicable equity incentive plans:

	Total Restricted Stock and RSUs	Time-Based Restricted Stock and RSUs	Performance-Based RSUs	Time-Based Weighted Average Grant Date Fair Value Per Share	Performance-Based Weighted Average Grant Date Fair Value Per Share
Unvested, December 31, 2022	3,068,851	2,706,078 (3)	362,773 (4)	$ 36.67	$ 38.21
Granted	1,195,377 (1)	998,913	196,464 (5)	41.15	39.03
Vested	(518,106)	(360,946)	(157,160)	44.70	38.20
Forfeited and canceled	(121,669)	(87,875)	(33,794)	30.82	32.83
Unvested, June 30, 2023	3,624,453 (2)	3,256,170	368,283	37.32	39.14

(1) For the six months ended June 30, 2023, the Company only granted RSUs.

(2) Includes 64,939 RSUs which are expected to be settled in cash.

(3) Includes 199,076 time-based RSUs granted during the three months ended March 31, 2022 to certain officers and key employees, which cliff vest on January 31, 2025.

(4) Primarily relates to the 2022 annual performance period, except for 185,186 performance-based RSUs granted during the year ended December 31, 2022 with extraordinary terms, which are described below.

(5) Primarily relates to the 2023 annual performance period, except for 13,367 additional shares earned based on the achievement of 2022 performance goals for performance-based RSUs granted during the year ended December 31, 2022.

During the year ended December 31, 2022, the Company granted 185,186 performance-based RSUs to certain officers and key employees, which vest subject to the achievement of certain performance goals over a three-year performance period (the "Performance Period"). For each year of the Performance Period, one-third of the performance-based RSUs will be subject to a cliff, whereby no vesting of that portion will occur unless the Company's applicable margin metrics (which, for 2022, was Adjusted EBITDA margin and for 2023 and 2024, will be Adjusted operating income inclusive of stock-based compensation expense ("Adjusted OI w/SBC") margin, excluding the impact of currency exchange fluctuations) also equals or exceeds the relevant target level for such year. Provided that the applicable margin targets are met, the total number of performance-based RSUs that will vest is determined by the achievement of growth targets, which include growth in ARR, as well as actual bookings for perpetual licenses and non-recurring services. Final actual vesting will be determined on January 31, 2025. The 2022 Adjusted EBITDA margin target for the performance-based RSUs was met.

In 2016, the Company granted RSUs subject to performance-based vesting as determined by the achievement of certain business growth targets. Certain colleagues elected to defer delivery of such shares upon vesting. During the six months ended June 30, 2023 and 2022, 1,562 and 10,888 shares, respectively, were delivered to colleagues, and 20 and 16 additional shares, respectively, were earned as a result of dividends. As of June 30, 2023 and December 31, 2022, 7,821 and 9,363 shares, respectively, of these vested and deferred RSUs remained outstanding.

The weighted average grant date fair values of RSUs granted were $40.80 and $39.02, for the six months ended June 30, 2023 and 2022, respectively.

For the six months ended June 30, 2023 and 2022, restricted stock and RSUs were issued net of 104,773 and 52,026 shares, respectively, which were sold back to the Company to settle applicable income tax withholdings of $4,336 and $2,148, respectively.

As of June 30, 2023, there was $95,227 of unrecognized compensation expense related to unvested time-based restricted stock and RSUs, which is expected to be recognized over a weighted average period of approximately 1.8 years. As of June 30, 2023, there was $8,437 of unrecognized compensation expense related to unvested performance-based RSUs, which is expected to be recognized over a weighted average period of approximately 1.0 years.

Stock Grants

For the six months ended June 30, 2023 and 2022, the Company granted 12,639 and 13,632 fully vested shares of Class B Common Stock, respectively, with a fair value of $600 and $450, respectively.

Note 16: Income Taxes

The following is a summary of *Income before income taxes*, *(Benefit) provision for income taxes*, and effective tax rate for the periods presented:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Income before income taxes	$ 44,786	$ 51,592	$ 99,768	$ 111,783
(Benefit) provision for income taxes	$ (3,899)	$ (4,674)	$ 5,593	$ (1,443)
Effective tax rate	(8.7)%	(9.1)%	5.6 %	(1.3)%

For the three months ended June 30, 2023, the effective tax rate was higher compared to the prior year period primarily due to the increase in the forecasted effective tax rate impact of the U.S. Global Intangible Low-Taxed Income (“GILTI”) inclusion due to the mandatory capitalization of research and development expenses for U.S. tax purposes, partially offset by an increase in discrete tax benefits recognized in the current year period. For the three months ended June 30, 2023 and 2022, the Company recorded discrete tax benefits of $20,394 and $19,024, respectively, primarily associated with windfall tax benefits from stock-based compensation, net of the impact from officer compensation limitation provisions.

For the six months ended June 30, 2023, the effective tax rate was higher compared to the prior year period primarily due to the decrease in discrete tax benefits recognized in the current year period and the increase in the forecasted effective tax rate impact of the GILTI inclusion due to the mandatory capitalization of research and development expenses for U.S. tax purposes. For the six months ended June 30, 2023 and 2022, the Company recorded discrete tax benefits of $27,467 and $31,752, respectively, primarily associated with windfall tax benefits from stock-based compensation, net of the impact from officer compensation limitation provisions.

Note 17: Fair Value of Financial Instruments

A financial asset or liability classification is determined based on the lowest level input that is significant to the fair value measurement. The fair value hierarchy consists of the following three levels:

Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument.

Level 3 inputs are unobservable inputs based on management’s own assumptions used to measure assets and liabilities at fair value.

The Company's financial instruments include cash equivalents, account receivables, certain other assets, accounts payable, accruals, certain other current and long-term liabilities, and long-term debt.

Current assets and current liabilities — In general, the carrying amounts reported on the Company's consolidated balance sheets for current assets and current liabilities approximate their fair values due to the short-term nature of those instruments.

The following methods and assumptions were used by the Company in estimating its fair value measurements for Level 2 and Level 3 financial instruments as of June 30, 2023 and December 31, 2022:

Acquisition contingent consideration — The fair value of these liabilities is generally determined using a cost or income approach and is measured based on significant inputs not observable in the market, which represents a Level 3 measurement within the fair value hierarchy. The valuation of contingent consideration uses assumptions the Company believes would be made by a market participant.

Interest rate swap — The fair value of the Company's interest rate swap asset or liability is determined using an income approach and is measured based on the implied forward rates for the remaining term of the interest rate swap. The Company considers these valuation inputs to be Level 2 inputs in the fair value hierarchy.

Long-term debt — The fair value of the Company's borrowings under its Credit Facility approximated its carrying value based upon discounted cash flows at current market rates for instruments with similar remaining terms. The Company considers these valuation inputs to be Level 2 inputs in the fair value hierarchy. As of June 30, 2023, the estimated fair value of the 2026 Notes and 2027 Notes was $700,438 and $516,873, respectively. As of December 31, 2022, the estimated fair value of the 2026 Notes and 2027 Notes was $622,431 and $470,856, respectively. The estimated fair value of the 2026 Notes and 2027 Notes is based on quoted market prices of the Company's instrument in markets that are not active and are classified as Level 2 within the fair value hierarchy. Considerable judgment is necessary to interpret the market data and develop estimates of fair values. Accordingly, the estimates presented are not necessarily indicative of the amounts at which these instruments could be purchased, sold, or settled.

Deferred compensation plan liabilities — The fair value of deferred compensation plan liabilities, including the liability classified phantom investments in the DCP, are marked to market at the end of each reporting period.

Financial assets and financial liabilities carried at fair value measured on a recurring basis consist of the following:

June 30, 2023	**Level 1**	**Level 2**	**Level 3**	**Total**
Assets:				
Money market funds (1)	$ 6,026	$ —	$ —	$ 6,026
Interest rate swap (2)	—	36,537	—	36,537
Total assets	$ 6,026	$ 36,537	$ —	$ 42,563
Liabilities:				
Acquisition contingent consideration (3)	$ —	$ —	$ 3	$ 3
Deferred compensation plan liabilities (4)	84,879	—	—	84,879
Cash-settled equity awards (3)	968	—	—	968
Total liabilities	$ 85,847	$ —	$ 3	$ 85,850

December 31, 2022	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds (1)	$ 19	$ —	$ —	$ 19
Interest rate swap (2)	—	37,200	—	37,200
Total assets	$ 19	$ 37,200	$ —	$ 37,219
Liabilities:				
Acquisition contingent consideration (3)	$ —	$ —	$ 1,196	$ 1,196
Deferred compensation plan liabilities (4)	79,081	—	—	79,081
Cash-settled equity awards (3)	536	—	—	536
Total liabilities	$ 79,617	$ —	$ 1,196	$ 80,813

(1) Included in *Cash and cash equivalents* in the consolidated balance sheets.

(2) Included in *Other assets* in the consolidated balance sheets.

(3) Included in *Accruals and other current liabilities* in the consolidated balance sheets.

(4) Included in *Deferred compensation plan liabilities*, except for current liabilities of $2,238 and $2,067 as of June 30, 2023 and December 31, 2022, respectively, which are included in *Accruals and other current liabilities* in the consolidated balance sheets.

The following is a reconciliation of the changes in fair value of the Company's financial liabilities which have been classified as Level 3 in the fair value hierarchy:

	Six Months Ended June 30, 2023	Year Ended December 31, 2022
Balance, beginning of year	$ 1,196	$ 6,613
Payments	(1,206)	(5,261)
Addition	—	1,390
Change in fair value	—	(1,427)
Foreign currency translation adjustments	13	(119)
Balance, end of period	$ 3	$ 1,196

The Company did not have any transfers between levels within the fair value hierarchy.

Note 18: Commitments and Contingencies

Purchase Commitment — In the normal course of business, the Company enters into various purchase commitments for goods and services. During June 2023, the Company entered into a $122,000 non-cancelable future cash purchase commitment for services related to cloud provisioning of the Company's software solutions through May 2026. As of June 30, 2023, the non-cancelable future cash purchase commitment was $118,915. The Company expects to fully consume its contractual commitment in the ordinary course of operations.

Litigation — From time to time, the Company is involved in certain legal actions arising in the ordinary course of business. In management's opinion, based upon the advice of counsel, the outcome of such actions is not expected to have a material adverse effect on the Company's future financial position, results of operations, or cash flows.

Note 19: Geographic Data

Revenues by geographic region are presented in Note 3. Long-lived assets (other than goodwill), net of depreciation and amortization by geographic region (see Notes 5, 6, and 8) are as follows:

	June 30, 2023	December 31, 2022
Americas [1]	$ 158,643	$ 164,729
EMEA	37,218	32,372
APAC	154,546	167,670
Total long-lived assets	$ 350,407	$ 364,771

(1) Americas includes the U.S., Canada, and Latin America (including the Caribbean).

Note 20: Other Income, Net

Other income, net consists of the following:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Gain (loss) from:				
Change in fair value of interest rate swap (see Note 17)	$ 3,826	$ 7,406	$ (663)	$ 19,490
Foreign exchange [1]	2,104	(4,717)	3,558	(7,788)
Sale of aircraft (see Note 5)	—	—	—	2,029
Change in fair value of acquisition contingent consideration (see Note 17)	—	—	—	(500)
Receipts (payments) related to interest rate swap	2,164	17	4,084	(277)
Other (expense) income, net [2]	(7,129)	808	(5,725)	907
Total other income, net	$ 965	$ 3,514	$ 1,254	$ 13,861

(1) Foreign exchange gain (loss) is primarily attributable to foreign currency translation derived mainly from U.S. dollar denominated cash and cash equivalents, account receivables, customer deposits, and intercompany balances held by foreign subsidiaries. Intercompany finance transactions primarily denominated in U.S. dollars resulted in unrealized foreign exchange gains (losses) of $1,397 and $(5,799) for the three months ended June 30, 2023 and 2022, respectively, and $2,258 and $(6,563) for the six months ended June 30, 2023 and 2022, respectively.

(2) Other (expense) income, net includes investment impairment charges of $(7,318) for the three and six months ended June 30, 2023 (see Note 7).

Note 21: Net Income Per Share

The Company issues certain performance-based RSUs determined to be participating securities because holders of such shares have non-forfeitable dividend rights in the event of the Company's declaration of a dividend for common shares. As of June 30, 2023 and 2022, there were 368,283 and 356,946 participating securities outstanding, respectively.

Undistributed net income allocated to participating securities are subtracted from net income in determining basic net income attributable to common stockholders. Basic net income per share is computed by dividing basic net income attributable to common stockholders by the weighted average number of shares, inclusive of undistributed shares held in the DCP as phantom shares of the Company's Class B Common Stock.

For the Company’s diluted net income per share numerator, interest expense, net of tax, attributable to the assumed conversion of the convertible senior notes is added back to basic net income attributable to common stockholders. For the Company’s diluted net income per share denominator, the basic weighted average number of shares is adjusted for the effect of dilutive securities, including awards under the Company’s equity compensation plans and ESPP, and for the dilutive effect of the assumed conversion of the convertible senior notes. Diluted net income per share attributable to common stockholders is computed by dividing diluted net income attributable to common stockholders by the weighted average number of fully diluted common shares.

Except with respect to voting and conversion, the rights of the holders of the Company’s Class A Common Stock and the Company’s Class B Common Stock are identical. Each class of shares has the same rights to dividends and allocation of income (loss) and, therefore, net income per share would not differ under the two-class method.

The details of basic and diluted net income per share are as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	**2022**	**2023**	**2022**
Numerator:				
Net income	$ 48,685	$ 55,673	$ 94,175	$ 112,061
Less: Net income attributable to participating securities	(19)	(11)	(38)	(20)
Net income attributable to Class A and Class B common stockholders, basic	48,666	55,662	94,137	112,041
Add: Interest expense, net of tax, attributable to assumed conversion of convertible senior notes	1,723	1,705	3,440	3,400
Net income attributable to Class A and Class B common stockholders, diluted	$ 50,389	$ 57,367	$ 97,577	$ 115,441
Denominator:				
Weighted average shares, basic	311,914,602	308,244,778	311,366,371	308,512,924
Dilutive effect of stock options, restricted stock, and RSUs	2,643,664	6,167,330	2,744,259	5,854,791
Dilutive effect of ESPP	160,673	195,485	87,557	173,097
Dilutive effect of assumed conversion of convertible senior notes	17,633,786	17,667,623	17,633,786	17,667,623
Weighted average shares, diluted	332,352,725	332,275,216	331,831,973	332,208,435
Net income per share, basic	$ 0.16	$ 0.18	$ 0.30	$ 0.36
Net income per share, diluted	$ 0.15	$ 0.17	$ 0.29	$ 0.35

The following potential common shares were excluded from the calculation of diluted net income per share attributable to common stockholders because their effect would have been anti-dilutive for the periods presented:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
RSUs	—	223,731	—	223,731
Total anti-dilutive securities	—	223,731	—	223,731

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

The following discussion should be read in conjunction with our unaudited consolidated financial statements and notes thereto appearing in Part I, Item 1 of this Quarterly Report on Form 10-Q and with our audited consolidated financial statements and notes thereto included in our 2022 Annual Report on Form 10-K.

All amounts presented in this Management’s Discussion and Analysis of Financial Condition and Results of Operations, except share and per share amounts, are presented in thousands. Additionally, many of the amounts and percentages have been rounded for convenience of presentation. Minor differences in totals and percentage calculations may exist due to rounding.

Overview

We are a leading global provider of software for infrastructure engineering, and enable infrastructure professionals and their organizations, by “going digital” through our software and cloud services offerings, to better design, build, and operate better infrastructure. Our users engineer, construct, and operate projects and assets across the following infrastructure sectors: public works/utilities, resources, industrial, and commercial/facilities.

Our enduring commitment is to develop and support the most comprehensive portfolio of integrated software offerings across professional disciplines, project and asset lifecycles, infrastructure sectors, and geographies. We deliver our solutions via on-premises, cloud, and hybrid environments. Our software enables digital workflows across engineering disciplines, across distributed project teams, and from offices to the field.

We believe that our offerings, in particular our infrastructure digital twin solutions, empower the achievement of sustainable development goals by helping our users – infrastructure professionals – realize outcomes that are more sustainable and resilient.

Results of Operations

	Three Months Ended June 30,				Six Months Ended June 30,			
	2023		2022		2023		2022	
Revenues:								
Subscriptions	$	259,243	$	232,191	$	537,088	$	473,424
Perpetual licenses		11,718		11,548		21,265		21,753
Subscriptions and licenses		270,961		243,739		558,353		495,177
Services		25,788		24,546		52,807		48,625
Total revenues		296,749		268,285		611,160		543,802
Cost of revenues:								
Cost of subscriptions and licenses		41,156		36,806		82,087		70,533
Cost of services		25,270		22,888		51,523		44,946
Total cost of revenues		66,426		59,694		133,610		115,479
Gross profit		230,323		208,591		477,550		428,323
Operating expense (income):								
Research and development		70,117		64,866		137,917		126,139
Selling and marketing		54,364		49,617		106,505		95,562
General and administrative		39,258		40,033		86,065		91,187
Deferred compensation plan		3,777		(12,159)		7,923		(17,297)
Amortization of purchased intangibles		9,502		10,517		20,050		20,423
Total operating expenses		177,018		152,874		358,460		316,014
Income from operations		53,305		55,717		119,090		112,309
Interest expense, net		(9,484)		(7,639)		(20,576)		(14,387)
Other income, net		965		3,514		1,254		13,861
Income before income taxes		44,786		51,592		99,768		111,783
Benefit (provision) for income taxes		3,899		4,674		(5,593)		1,443
Loss from investments accounted for using the equity method, net of tax		—		(593)		—		(1,165)
Net income	$	48,685	$	55,673	$	94,175	$	112,061
Per share information:								
Net income per share, basic	$	0.16	$	0.18	$	0.30	$	0.36
Net income per share, diluted	$	0.15	$	0.17	$	0.29	$	0.35
Weighted average shares, basic		311,914,602		308,244,778		311,366,371		308,512,924
Weighted average shares, diluted		332,352,725		332,275,216		331,831,973		332,208,435

Comparison of the Three and Six Months Ended June 30, 2023 and 2022

Revenues

	Three Months Ended June 30,		Comparison		
	2023	**2022**	**Amount**	**%**	**Constant Currency %(1)**
Subscriptions	$ 259,243	$ 232,191	$ 27,052	11.7 %	10.9 %
Perpetual licenses	11,718	11,548	170	1.5 %	1.4 %
Subscriptions and licenses	270,961	243,739	27,222	11.2 %	10.5 %
Services	25,788	24,546	1,242	5.1 %	6.1 %
Total revenues	$ 296,749	$ 268,285	$ 28,464	10.6 %	10.1 %

	Six Months Ended June 30,		Comparison		
	2023	**2022**	**Amount**	**%**	**Constant Currency %(1)**
Subscriptions	$ 537,088	$ 473,424	$ 63,664	13.4 %	14.5 %
Perpetual licenses	21,265	21,753	(488)	(2.2 %)	(0.7 %)
Subscriptions and licenses	558,353	495,177	63,176	12.8 %	13.8 %
Services	52,807	48,625	4,182	8.6 %	11.6 %
Total revenues	$ 611,160	$ 543,802	$ 67,358	12.4 %	13.6 %

(1) Constant currency is a non-GAAP financial measure. Refer to the “Non-GAAP Financial Measures” section for additional information, including our definition and our use of constant currency.

The increase in total revenues for the three months ended June 30, 2023 was primarily driven by increases in subscriptions revenues, and to a lesser extent, services and perpetual licenses revenues. The increase in total revenues for the six months ended June 30, 2023 was primarily driven by increases in subscriptions revenues, and to a lesser extent, services revenues. Partially offsetting these increases were decreases in perpetual licenses revenues for the six months ended June 30, 2023.

Subscriptions. For the three months ended June 30, 2023, the increase in subscriptions revenues was driven by improvements in our business performance of approximately $27,052 ($25,364 on a constant currency basis). Our business performance excludes the impact of our platform acquisitions and includes the impact from programmatic acquisitions, which generally are immaterial, individually and in the aggregate.

For the six months ended June 30, 2023, the increase in subscriptions revenues was primarily driven by improvements in our business performance of approximately $59,363 ($64,351 on a constant currency basis) and the impact from our platform acquisition of approximately $4,301 ($4,330 on a constant currency basis). The platform acquisition impact relates to our acquisition of PLS and is inclusive of PLS’ organic performance.

For the three and six months ended June 30, 2023, the improvements in business performance were primarily driven by expansion from accounts with revenues in the prior period (“existing accounts”), and growth of 3% attributable to new accounts, most notably smaller- and medium-sized accounts. Improvements in business performance for the three and six months ended June 30, 2023 were led by our civil and structural engineering applications, geoprofessional applications, and our Enterprise Systems for project delivery.

Perpetual licenses. For the three months ended June 30, 2023, the increase in perpetual licenses revenues was driven by improvements in business performance of approximately $170 ($163 on a constant currency basis). For the six months ended June 30, 2023, the decrease in perpetual licenses revenues was driven by a decline in business performance of approximately $488 ($158 on a constant currency basis).

Services. For the three and six months ended June 30, 2023, the increase in services revenues was driven by improvements in our business performance of approximately $1,242 ($1,486 on a constant currency basis) and $4,182 ($5,659 on a constant currency basis), respectively.

For the three and six months ended June 30, 2023, the improvements in business performance were primarily driven by contributions from Cohesive digital integrator services of approximately $1,597 ($1,829 on a constant currency basis) and $5,179 ($6,445 on a constant currency basis), respectively.

Revenues by Geographic Region

Revenue from external customers is attributed to individual countries based upon the location of the customer. Revenues by geographic region are as follows:

	Three Months Ended June 30,		Comparison		
	2023	2022	Amount	%	Constant Currency %[1]
Americas	$ 158,836	$ 144,359	$ 14,477	10.0 %	9.9 %
EMEA	83,444	74,800	8,644	11.6 %	9.7 %
APAC	54,469	49,126	5,343	10.9 %	11.2 %
Total revenues	$ 296,749	$ 268,285	$ 28,464	10.6 %	10.1 %

	Six Months Ended June 30,		Comparison		
	2023	2022	Amount	%	Constant Currency %[1]
Americas	$ 327,181	$ 298,619	$ 28,562	9.6 %	9.7 %
EMEA	176,276	152,280	23,996	15.8 %	18.1 %
APAC	107,703	92,903	14,800	15.9 %	19.0 %
Total revenues	$ 611,160	$ 543,802	$ 67,358	12.4 %	13.6 %

(1) Constant currency is a non-GAAP financial measure. Refer to the “Non-GAAP Financial Measures” section for additional information, including our definition and our use of constant currency.

Americas. For the three months ended June 30, 2023, the increase in revenues from the Americas was driven by improvements in our business performance of approximately $14,477 ($14,224 on a constant currency basis).

For the six months ended June 30, 2023, the increase in revenues from the Americas was primarily driven by improvements in our business performance of approximately $24,872 ($25,174 on a constant currency basis) and the impact from our platform acquisition of approximately $3,690 ($3,697 on a constant currency basis).

The improvements in business performance for the three and six months ended June 30, 2023 were primarily due to expansion of our subscriptions revenues from existing accounts in the U.S.

EMEA. For the three and six months ended June 30, 2023, the increase in revenues from EMEA was primarily driven by improvements in our business performance of approximately $8,644 ($7,270 on a constant currency basis) and $23,547 ($27,164 on a constant currency basis), respectively.

The improvements in business performance for the three months ended June 30, 2023 were primarily due to expansion of our subscriptions revenues from existing accounts in Central Europe and the Middle East. Partially offsetting these increases were reductions in Russia due to exiting our operations beginning in the second quarter of 2022.

The improvements in business performance for the six months ended June 30, 2023 were primarily due to expansion of our subscriptions revenues from existing accounts in the U.K., the Middle East, and Africa, partially offset by reductions in Russia due to exiting our operations beginning in the second quarter of 2022.

APAC. For the three and six months ended June 30, 2023, the increase in revenues from APAC was primarily driven by improvements in our business performance of approximately $5,343 ($5,519 on a constant currency basis) and $14,638 ($17,514 on a constant currency basis), respectively.

The improvements in business performance for the three months ended June 30, 2023 were primarily due to expansion of our subscriptions revenues from existing accounts in India and Australia, partially offset by declines in China.

The improvements in business performance for the six months ended June 30, 2023 were primarily due to expansion of our subscriptions revenues from existing accounts in India, Australia, and Southeast Asia.

Revenues in China for the three and six months ended June 30, 2023 decreased as compared to the same periods in the prior year. The future results in China remain uncertain as a result of continued geopolitical challenges, the obstacles there to cloud-deployed software, and the financial timing impact of the preference there for license sales, rather than subscriptions, of locally-developed solutions based on our platforms.

Cost of Revenues

	Three Months Ended June 30,		**Comparison**		
	2023	**2022**	**Amount**	**%**	**Constant Currency %[1]**
Cost of subscriptions and licenses	$ 41,156	$ 36,806	$ 4,350	11.8 %	12.3 %
Cost of services	25,270	22,888	2,382	10.4 %	12.3 %
Total cost of revenues	$ 66,426	$ 59,694	$ 6,732	11.3 %	12.3 %

	Six Months Ended June 30,		**Comparison**		
	2023	**2022**	**Amount**	**%**	**Constant Currency %[1]**
Cost of subscriptions and licenses	$ 82,087	$ 70,533	$ 11,554	16.4 %	18.2 %
Cost of services	51,523	44,946	6,577	14.6 %	18.9 %
Total cost of revenues	$ 133,610	$ 115,479	$ 18,131	15.7 %	18.5 %

(1) Constant currency is a non-GAAP financial measure. Refer to the “Non-GAAP Financial Measures” section for additional information, including our definition and our use of constant currency.

Cost of subscriptions and licenses. For the three and six months ended June 30, 2023, on a constant currency basis, cost of subscriptions and licenses increased primarily due to an increase in headcount-related costs of approximately $3,737 and $8,232, respectively, mainly due to increases in headcount and annual compensation costs. Cost of subscriptions and licenses also increased due to an increase in cloud-related costs of approximately $596 and $2,740 for the three and six months ended June 30, 2023, respectively.

Cost of services. For the three months ended June 30, 2023, on a constant currency basis, cost of services increased primarily due to an increase in headcount-related costs of approximately $2,870, mainly due to third-party personnel costs.

For the six months ended June 30, 2023, on a constant currency basis, cost of services increased primarily due to an increase in headcount-related costs of approximately $8,306, mainly due to third-party personnel costs, and to a lesser extent, increases in headcount.

Operating Expense (Income)

	Three Months Ended June 30,		Comparison		
	2023	**2022**	**Amount**	**%**	**Constant Currency %[1]**
Research and development	$ 70,117	$ 64,866	$ 5,251	8.1 %	10.0 %
Selling and marketing	54,364	49,617	4,747	9.6 %	10.7 %
General and administrative	39,258	40,033	(775)	(1.9 %)	(1.5 %)
Deferred compensation plan	3,777	(12,159)	15,936	NM	NM
Amortization of purchased intangibles	9,502	10,517	(1,015)	(9.7 %)	(9.4 %)
Total operating expenses	$ 177,018	$ 152,874	$ 24,144	15.8 %	17.1 %

	Six Months Ended June 30,		Comparison		
	2023	**2022**	**Amount**	**%**	**Constant Currency %[1]**
Research and development	$ 137,917	$ 126,139	$ 11,778	9.3 %	12.4 %
Selling and marketing	106,505	95,562	10,943	11.5 %	13.9 %
General and administrative	86,065	91,187	(5,122)	(5.6 %)	(4.4 %)
Deferred compensation plan	7,923	(17,297)	25,220	NM	NM
Amortization of purchased intangibles	20,050	20,423	(373)	(1.8 %)	(0.7 %)
Total operating expenses	$ 358,460	$ 316,014	$ 42,446	13.4 %	15.8 %

Percentage changes that are considered not meaningful are denoted with NM.

(1) Constant currency is a non-GAAP financial measure. Refer to the “Non-GAAP Financial Measures” section for additional information, including our definition and our use of constant currency.

Research and development. For the three and six months ended June 30, 2023, on a constant currency basis, research and development expenses increased primarily due to an increase in headcount-related costs of approximately $6,666 and $15,294, respectively, mainly due to increases in headcount and annual compensation costs.

Selling and marketing. For the three months ended June 30, 2023, on a constant currency basis, selling and marketing expenses increased primarily due to an increase in headcount-related costs of approximately $5,481, mainly due to increases in headcount and annual compensation costs, and to a lesser extent, an increase in variable compensation costs. The three months ended June 30, 2022 included $1,123 of asset impairments and $826 of termination benefits as a result of our decision to wind down business and exit the Russian market beginning in the second quarter of 2022.

For the six months ended June 30, 2023, on a constant currency basis, selling and marketing expenses increased primarily due to an increase in headcount-related costs of approximately $12,622, mainly due to increases in headcount, and to a lesser extent, an increase in stock-based compensation expense, variable compensation costs, and travel-related costs. The six months ended June 30, 2022 included $1,123 of asset impairments and $826 of termination benefits as a result of our decision to wind down business and exit the Russian market beginning in the second quarter of 2022.

General and administrative. For the three months ended June 30, 2023, on a constant currency basis, general and administrative expenses decreased primarily due to lower non-income related taxes of approximately $3,429. The three months ended June 30, 2022 included $1,085 of asset impairments as a result of our decision to wind down business and exit the Russian market beginning in the second quarter of 2022. Partially offsetting these decreases were increases in headcount and annual compensation costs of approximately $4,218.

For the six months ended June 30, 2023, on a constant currency basis, general and administrative expenses decreased primarily due to lower acquisition expenses of approximately $5,851 (acquisition expenses were $5,298 for the six months ended June 30, 2023 compared to $11,251 for the six months ended June 30, 2022), lower non-income related taxes of approximately $5,066, and a decrease in facility-related costs of approximately $1,631. Costs resulting from our decision to wind down business and exit the Russian market beginning in the second quarter of 2022 were approximately $3,050 lower in the current year period. Partially offsetting these decreases were increases in headcount-related costs of approximately $11,677, mainly due to increases in headcount and annual compensation costs, and to a lesser extent, an increase in stock-based compensation expense.

Deferred compensation plan. For the three months ended June 30, 2023, deferred compensation plan expense was $3,777 as compared to deferred compensation plan income of $12,159 for the three months ended June 30, 2022. For the six months ended June 30, 2023, deferred compensation plan expense was $7,923 as compared to deferred compensation plan income of $17,297 for the six months ended June 30, 2022. These amounts were attributable to the marked to market impact on deferred compensation plan liability balances period over period.

Amortization of purchased intangibles. For the three and six months ended June 30, 2023, on a constant currency basis, amortization of purchased intangibles decreased primarily due to previously acquired intangible assets that continue to become fully amortized and lower acquisition activity as compared to the prior year.

Interest Expense, Net

	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	Comparison Amount	Comparison %
Interest expense	$ (9,994)	$ (7,721)	$ (2,273)	29.4 %
Interest income	510	82	428	NM
Interest expense, net	$ (9,484)	$ (7,639)	$ (1,845)	24.2 %

	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022	Comparison Amount	Comparison %
Interest expense	$ (21,315)	$ (14,551)	$ (6,764)	46.5 %
Interest income	739	164	575	NM
Interest expense, net	$ (20,576)	$ (14,387)	$ (6,189)	43.0 %

Percentage changes that are considered not meaningful are denoted with NM.

For the three and six months ended June 30, 2023, interest expense, net increased primarily due to a higher weighted average interest rate on borrowings under the revolving loan facility and on the Term Loan, partially offset by lower weighted average debt outstanding.

Other Income, Net

	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022
Gain (loss) from:				
Change in fair value of interest rate swap	$ 3,826	$ 7,406	$ (663)	$ 19,490
Foreign exchange [(1)]	2,104	(4,717)	3,558	(7,788)
Sale of aircraft	—	—	—	2,029
Change in fair value of acquisition contingent consideration	—	—	—	(500)
Receipts (payments) related to interest rate swap	2,164	17	4,084	(277)
Other (expense) income, net [(2)]	(7,129)	808	(5,725)	907
Total other income, net	$ 965	$ 3,514	$ 1,254	$ 13,861

(1) Foreign exchange gain (loss) is primarily attributable to foreign currency translation derived mainly from U.S. dollar denominated cash and cash equivalents, account receivables, customer deposits, and intercompany balances held by foreign subsidiaries. Intercompany finance transactions primarily denominated in U.S. dollars resulted in unrealized foreign exchange gains (losses) of $1,397 and $(5,799) for the three months ended June 30, 2023 and 2022, respectively, and $2,258 and $(6,563) for the six months ended June 30, 2023 and 2022, respectively.

(2) Other (expense) income, net includes investment impairment charges of $(7,318) for the three and six months ended June 30, 2023.

(Benefit) Provision for Income Taxes

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Income before income taxes	$ 44,786	$ 51,592	$ 99,768	$ 111,783
(Benefit) provision for income taxes	$ (3,899)	$ (4,674)	$ 5,593	$ (1,443)
Effective tax rate	(8.7)%	(9.1)%	5.6 %	(1.3)%

For the three months ended June 30, 2023, the effective tax rate was higher compared to the prior year period primarily due to the increase in the forecasted effective tax rate impact of the GILTI inclusion due to the mandatory capitalization of research and development expenses for U.S. tax purposes, partially offset by an increase in discrete tax benefits recognized in the current year period. For the three months ended June 30, 2023 and 2022, we recorded discrete tax benefits of $20,394 and $19,024, respectively, primarily associated with windfall tax benefits from stock-based compensation, net of the impact from officer compensation limitation provisions.

For the six months ended June 30, 2023, the effective tax rate was higher compared to the prior year period primarily due to the decrease in discrete tax benefits recognized in the current year period and the increase in the forecasted effective tax rate impact of the GILTI inclusion due to the mandatory capitalization of research and development expenses for U.S. tax purposes. For the six months ended June 30, 2023 and 2022, we recorded discrete tax benefits of $27,467 and $31,752, respectively, primarily associated with windfall tax benefits from stock-based compensation, net of the impact from officer compensation limitation provisions.

Key Business Metrics

In addition to our results of operations discussed above, we believe the following presentation of key business metrics provides additional useful information to investors regarding our results of operations. To the extent material, we disclose below the additional purposes, if any, for which our management uses these key business metrics. Our key business metrics may vary significantly from period to period for reasons unrelated to our operating performance and may differ from similarly titled measures presented by other companies.

	June 30,	
	2023	2022
ARR	$ 1,105,914	$ 971,876
Last twelve-months recurring revenues	$ 1,041,941	$ 930,798
Twelve-months ended constant currency [(1)]:		
ARR growth rate	13 %	14 %
Account retention rate	98 %	98 %
Recurring revenues dollar-based net retention rate	110 %	109 %

(1) Constant currency is a non-GAAP financial measure. Refer to the “Non-GAAP Financial Measures” section for additional information, including our definition and our use of constant currency.

Recurring revenues

Recurring revenues are the basis for our other revenue-related key business metrics. We believe this measure is useful in evaluating our ability to consistently retain and grow our revenues within our existing accounts.

Recurring revenues are subscriptions revenues that recur monthly, quarterly, or annually with specific or automatic renewal clauses and professional services revenues in which the underlying contract is based on a fixed fee and contains automatic annual renewal provisions.

ARR

ARR is a key business metric that we believe is useful in evaluating the scale and growth of our business as well as to assist in the evaluation of underlying trends in our business. Furthermore, we believe ARR, considered in connection with our last twelve-month recurring revenues dollar-based net retention rate, is a leading indicator of revenue growth.

ARR is defined as the sum of the annualized value of our portfolio of contracts that produce recurring revenues as of the last day of the reporting period, and the annualized value of the last three months of recognized revenues for our contractually recurring consumption-based software subscriptions with consumption measurement durations of less than one year, calculated using the spot foreign exchange rates. We believe that the last three months of recognized revenues, on an annualized basis, for our recurring software subscriptions with consumption measurement period durations of less than one year is a reasonable estimate of the annual revenues, given our consistently high retention rate and stability of usage under such subscriptions.

ARR resulting from the annualization of recurring contracts with consumption measurement durations of less than one year, as a percentage of total ARR, was 45% and 40% as of June 30, 2023 and 2022, respectively. Within our consumption-measured ARR, the continued transition to our E365 subscription offering has increased daily consumption-measured ARR, representing 38% and 32% of total ARR as of June 30, 2023 and 2022, respectively. For the six months ended June 30, 2022, ARR was reduced by $11,190 due to our decision to exit the Russian market.

Constant currency ARR growth rate is the growth rate of ARR measured on a constant currency basis. We believe that ARR growth is an important metric indicating the scale and growth of our business.

Last twelve-months recurring revenues

Last twelve-month recurring revenues is a key business metric that we believe is useful in evaluating our ability to consistently retain and grow our recurring revenues. We believe that we will continue to experience favorable growth in recurring revenues primarily due to our strong account retention and recurring revenues dollar-based net retention rates, as well as the addition of new accounts with recurring revenues.

Last twelve-months recurring revenues is calculated as recurring revenues recognized over the preceding twelve-month period.

The last twelve-months recurring revenues for the periods ended June 30, 2023 compared to the last twelve-months of the comparative twelve-month period increased by $111,143. This increase was primarily due to growth in ARR, which is primarily the result of growing our recurring revenues within our existing accounts as expressed in our recurring revenues dollar-based net retention rate, as well as additional recurring revenues resulting from new accounts and acquisitions, including the favorable impact from our platform acquisition of PLS. For the twelve months ended June 30, 2023 and 2022, 89% and 88%, respectively, of our revenues were recurring revenues.

Account retention rate

Account retention rate is a key business metric that we believe is useful in evaluating the long-term value of our account relationships and our ability to retain our account base. We believe that our consistent and high account retention rates illustrate our ability to retain and cultivate long-term relationships with our accounts.

Account retention rate for any given twelve-month period is calculated using the average currency exchange rates for the prior period, as follows: the prior period recurring revenues from all accounts with recurring revenues in the current and prior period, divided by total recurring revenues from all accounts during the prior period.

Recurring revenues dollar-based net retention rate

Recurring revenues dollar-based net retention rate is a key business metric that we believe is useful in evaluating our ability to consistently retain and grow our recurring revenues.

Recurring revenues dollar-based net retention rate is calculated, using the average exchange rates for the prior period, as follows: the recurring revenues for the current period, including any growth or reductions from existing accounts, but excluding recurring revenues from any new accounts added during the current period, divided by the total recurring revenues from all accounts during the prior period. A period is defined as any trailing twelve months. Related to our platform acquisitions, recurring revenues into new accounts will be captured as existing accounts starting with the second anniversary of the acquisition when such data conforms to the calculation methodology. This may cause variability in the comparison.

Given that recurring revenues represented 89% of our total revenues for the twelve months ended June 30, 2023, this metric helps explain our revenue performance, excluding the impact from acquisitions, as primarily growth into existing accounts.

Non-GAAP Financial Measures

In addition to our results determined in accordance with GAAP discussed above, we believe the following presentation of financial measures not in accordance with GAAP provides useful information to investors regarding our results of operations. To the extent material, we disclose below the additional purposes, if any, for which our management uses these non-GAAP financial measures and provide reconciliations between these non-GAAP financial measures and their most directly comparable GAAP financial measures. Non-GAAP financial information should be considered in addition to, not as a substitute for, or in isolation from, the financial information prepared in accordance with GAAP, including operating income, or other measures of performance. Our non-GAAP financial measures may vary significantly from period to period for reasons unrelated to our operating performance and may differ from similarly titled measures presented by other companies.

Adjusted OI w/SBC

Adjusted OI w/SBC is a non-GAAP financial measure and is used to measure the operational strength and performance of our business, as well as to assist in the evaluation of underlying trends in our business.

Adjusted OI w/SBC is our primary performance measure, which excludes certain expenses and charges, including the non-cash amortization expense resulting from the acquisition of intangible assets, as we believe these may not be indicative of the Company’s core business operating results. We intentionally include stock-based compensation expense in this measure as we believe it better captures the economic costs of our business.

Management uses this non-GAAP financial measure to understand and compare operating results across accounting periods, for internal budgeting and forecasting purposes, to evaluate financial performance, and in our comparison of our financial results to those of other companies. It is also a significant performance measure in certain of our executive incentive compensation programs.

Adjusted OI w/SBC is defined as operating income adjusted for the following: amortization of purchased intangibles, expense (income) relating to deferred compensation plan liabilities, acquisition expenses, and realignment expenses (income), for the respective periods.

Adjusted operating income

Adjusted operating income is a non-GAAP financial measure that we believe is useful to investors in making comparisons to other companies, although this measure may not be directly comparable to similar measures used by other companies.

Adjusted operating income is defined as operating income adjusted for the following: amortization of purchased intangibles, expense (income) relating to deferred compensation plan liabilities, acquisition expenses, realignment expenses (income), and stock-based compensation expense, for the respective periods.

Reconciliation of operating income to Adjusted OI w/SBC and to Adjusted operating income:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Operating income	$ 53,305	$ 55,717	$ 119,090	$ 112,309
Amortization of purchased intangibles (1)	12,625	13,671	26,360	26,599
Deferred compensation plan (2)	3,777	(12,159)	7,923	(17,297)
Acquisition expenses (3)	3,521	3,856	12,298	17,853
Realignment expenses (income) (4)	29	3,194	(1,950)	3,194
Adjusted OI w/SBC	73,257	64,279	163,721	142,658
Stock-based compensation expense (5)	17,670	17,395	36,868	32,348
Adjusted operating income	$ 90,927	$ 81,674	$ 200,589	$ 175,006

Further explanation of certain of our adjustments in arriving at Adjusted OI w/SBC and Adjusted operating income are as follows:

(1) *Amortization of purchased intangibles*. Amortization of purchased intangibles varies in amount and frequency and is significantly impacted by the timing and size of our acquisitions. Management finds it useful to exclude these non-cash charges from our operating expenses to assist in budgeting, planning, and forecasting future periods. The use of intangible assets contributed to our revenues earned during the periods presented and will also contribute to our revenues in future periods. Amortization of purchased intangible assets will recur in future periods.

(2) *Deferred compensation plan*. We exclude *Deferred compensation plan* expense (income) when we evaluate our continuing operational performance because it is not reflective of our ongoing business and results of operation. We believe it is useful for investors to understand the effects of this item on our total operating expenses. Deferred compensation plan liabilities are marked to market at the end of each reporting period, with changes in the liabilities recorded as an expense (income) to *Deferred compensation plan* in the consolidated statements of operations.

(3) *Acquisition expenses*. We incur expenses for professional services rendered in connection with business combinations, which are included in our U.S. GAAP presentation of general and administrative expense (See Note 4 to our consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q). Also included in our acquisition expenses are retention incentives paid to executives of the acquired companies. We exclude these acquisition expenses when we evaluate our continuing operational performance as we would not have otherwise incurred these expenses in the periods presented as part of our continuing operations. For the three and six months ended June 30, 2022, $26 and $9,799, respectively, of our acquisition expenses related to our platform acquisition of PLS.

(4) *Realignment expenses (income)*. We exclude these charges and subsequent adjustments to our estimates when we evaluate our continuing operational performance because they are not reflective of our ongoing business and results of operations. We believe it is useful for investors to understand the effects of these items on our total operating expenses. In the ordinary course of operating our business, we incur severance expenses that are not included in this adjustment. For the three and six months ended June 30, 2022, *Realignment expenses* were comprised of asset impairments and termination benefits as a result of our decision to wind down business and exit the Russian market beginning in the second quarter of 2022. For the three and six months ended June 30, 2023, *Realignment expenses (income)* primarily relates to the continued wind down of our Russian entities.

(5) *Stock-based compensation expense*. We exclude non-cash stock-based compensation expenses from certain of our non-GAAP measures because we believe this is useful to investors in making comparisons to other companies.

Constant currency

Constant currency and constant currency growth rates are non-GAAP financial measures that present our results of operations excluding the estimated effects of foreign currency exchange rate fluctuations. We have operations outside the U.S. that are conducted in local currencies. As a result, the comparability of the financial results reported in U.S. dollars is affected by changes in foreign currency exchange rates. We use constant currency and constant currency growth rates to evaluate the underlying performance of the business, and we believe it is helpful for investors to present operating results on a comparable basis period over period to evaluate its underlying performance.

In reporting period-over-period results, we calculate the effects of foreign currency fluctuations and constant currency information by translating current period results using prior period average foreign currency exchange rates.

Liquidity and Capital Resources

Our primary source of operating cash is from the sale of subscriptions, perpetual licenses, and services. Our primary use of cash is payment of our operating costs, which consist primarily of headcount-related costs. In addition to operating expenses, we also use cash to service our debt obligations, to pay quarterly dividends, to repurchase our Class B Common Stock and convertible debt, and for capital expenditures in support of our operations. We also use cash to fund our acquisitions of software assets and businesses, and other investment activities, including our *iTwin Ventures* initiative which makes seed, early, and growth stage investments in technology companies with promising and emerging opportunities for infrastructure digital twin solutions potentially relevant to our business.

We have the right to require that certain equity awardees receive gross or net quantities of shares of our Class B Common Stock. On a gross basis, this determination is most meaningfully for the issuance of shares in connection with our executive bonus plan incentive compensation and distributions from the DCP, as awardees promptly reimburse to us the cash required for their tax withholding amounts. On a net basis, shares are withheld in consideration of remitting withholding taxes on behalf of equity awardees, thereby requiring us to remit cash for the tax withholdings. During the six months ended June 30, 2023, and the first quarter of 2022, we allowed certain equity awardees the option to receive net quantities of shares of our Class B Common Stock, whereas during the second quarter of 2022, we exercised our right to require that certain equity awardees receive gross quantities of shares of our Class B Common Stock. We will continue to evaluate whether share awards will be required to be received by awardees on a gross basis, or if net settlement may be elected by awardees.

We believe that existing domestic and international cash and cash equivalent balances, together with cash generated from operations, and liquidity under the Credit Facility, will be sufficient to meet our domestic and international working capital and capital expenditure requirements through the next twelve months. However, our future capital requirements may be materially different than those currently planned in our budgeting and forecasting activities and depend on many factors, including our strategy of regularly acquiring and integrating specialized infrastructure engineering software businesses, our rate of revenue growth, the timing and extent of spending on research and development, the expansion of our sales and marketing activities, the timing of new product introductions, market acceptance of our products, competitive factors, our discretionary payments of dividends or repurchases of our Class B Common Stock and convertible debt, currency fluctuations, and overall economic conditions, globally. To the extent that current and anticipated future sources of liquidity are insufficient to fund our future business activities and requirements, we may be required to seek additional equity or debt financing. The sale of additional equity would result in additional dilution to our stockholders, while the incurrence of debt financing, including convertible debt, would result in debt service obligations. Such debt instruments also could introduce covenants that might restrict our operations. We cannot provide assurance that we could obtain additional financing on favorable terms or at all.

Cash and cash equivalents

	June 30, 2023	December 31, 2022
Cash and cash equivalents held domestically	$ 2,887	$ 3,883
Cash and cash equivalents held by foreign subsidiaries	79,829	67,801
Total cash and cash equivalents	$ 82,716	$ 71,684

Long-term debt

	June 30, 2023	December 31, 2022
Current portion of long-term debt	$ 7,500	$ 5,000
Long-term debt	1,629,483	1,775,696
Total debt	$ 1,636,983	$ 1,780,696

Comparison of the Six Months Ended June 30, 2023 and 2022

Our cash flow activities for the six months ended June 30, 2023 and 2022 consist of the following:

	Six Months Ended June 30,	
	2023	2022
Net Cash Provided By (Used In):		
Operating activities	$ 256,819	$ 168,730
Investing activities	(29,752)	(723,967)
Financing activities	(215,976)	325,773

Operating activities

Net cash provided by operating activities was $256,819 for the six months ended June 30, 2023. Compared to the same period in the prior year, net cash provided by operating activities was higher by $88,089 due to an increase in net cash flows from the change in operating assets and liabilities of $73,814 and a net increase in non-cash adjustments of $32,161, partially offset by a decrease in net income of $17,886. The increase in cash flows from the change in operating assets and liabilities was primarily due to a decrease in accounts receivable period over period due to the timing of collections from accounts, an increase in deferred revenues period over period, higher accounts payable, higher CSS deposits, and the overall timing of tax payments.

For the six months ended June 30, 2022, net cash provided by operating activities was $168,730 resulting from net income of $112,061, changes in operating assets and liabilities of $29,255, and non-cash adjustments of $27,414.

Investing activities

Net cash used in investing activities was $29,752 for the six months ended June 30, 2023 due to $11,253 related to purchases of property and equipment and investment in capitalized software, $10,299 in acquisition related payments, net of cash acquired, to complete one acquisition, and $8,200 for purchases of investments.

For the six months ended June 30, 2022, net cash used in investing activities was $723,967 primarily due to $714,197 in acquisition related payments, net of cash acquired, to complete two acquisitions.

Financing activities

Net cash used in financing activities was $215,976 for the six months ended June 30, 2023 primarily due to the net paydown of the Credit Facility of $146,852, payments for shares acquired of $51,202, and payments of dividends of $29,224.

For the six months ended June 30, 2022, net cash provided by financing activities was $325,773 primarily due to an increase in net borrowings under the Credit Facility of $391,374, partially offset by net payments for shares acquired of $53,762, including shares repurchased under the Repurchase Program, and payments of dividends of $17,163.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

There have been no material changes in our market risk exposure as described in Part II, Item 7A. Quantitative and Qualitative Disclosures About Market Risk in our 2022 Annual Report on Form 10-K.

Item 4. Controls and Procedures

Evaluation of Effectiveness of Disclosure Controls and Procedures

Our management maintains disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”) that are designed to provide reasonable assurance that information required to be disclosed in our reports filed or submitted under the Exchange Act is processed, recorded, summarized, and reported within the time periods specified in the SEC’s rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer (our principal executive officer and principal financial officer, respectively), as appropriate, to allow for timely decisions regarding required disclosure.

We evaluated, under the supervision and with the participation of management, including our principal executive and principal financial officers, the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this report. Based on this evaluation, our principal executive officer and principal financial officer concluded that, as of June 30, 2023, our disclosure controls and procedures were effective at the reasonable assurance level.

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal control over financial reporting will necessarily prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within Bentley Systems, Incorporated have been detected.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting identified in management’s evaluation pursuant to Rules 13a or 15d of the Exchange Act that occurred during the quarter ended June 30, 2023 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

We are subject from time to time to various legal proceedings and claims which arise in the ordinary course of our business. Although the outcome of these and other claims cannot be predicted with certainty, we do not believe that the ultimate resolution of pending matters will have a material adverse effect on our financial condition, results of operations, or cash flows. We currently believe that we do not have any material litigation pending against us.

Item 1A. Risk Factors

There have been no material changes from the risk factors previously disclosed in Part I, Item 1A. Risk Factors in our 2022 Annual Report on Form 10-K.

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

Recent Sales of Unregistered Equity Securities

From April 1, 2023 to June 30, 2023, we issued 1,729,443 shares of our Class B Common Stock in connection with distributions from our DCP.

None of the foregoing transactions involved any underwriters, underwriting discounts or commissions, or any public offering. Unless otherwise stated, the sales of the above securities were deemed to be exempt from registration under the Securities Act in reliance on Rule 701 promulgated under Section 3(b) of the Securities Act as transactions by an issuer pursuant to benefit plans and contracts relating to compensation as provided under Rule 701. All recipients had adequate access, through their relationships with us, to information about us. The issuance of these securities were made without any general solicitation or advertising.

Item 5. Other Information

Rule 10b5-1 Trading Plans

Effective June 6, 2023, David R. Shaman, Chief Legal Officer and Secretary, terminated a trading plan established pursuant to Rule 10b5-1 of the Exchange Act, which was intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) and was adopted effective December 16, 2022, to sell an aggregate of 65,696 shares of our Class B common stock through December 31, 2023. Effective June 8, 2023, Mr. Shaman adopted a trading plan established pursuant to Rule 10b5-1 of the Exchange Act, which is intended to satisfy the affirmative defense conditions of Rule 10b5-1(c), to sell an aggregate of 127,942 shares of our Class B common stock through March 31, 2024.

During the three months ended June 30, 2023, there were no other Company directors or executive officers who adopted or terminated any contract, instruction or written plan for the purchase or sale of Company securities that was intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) or any “non-Rule 10b5-1 trading arrangement.”

Item 6. Exhibits

Exhibit Number	Description
10.1	Sixth Amendment, dated as of June 21, 2023, to the Amended and Restated Credit Agreement dated as of December 19, 2017, by and among Bentley Systems, Incorporated, PNC Bank National Association, as administrative agent, and the lenders party thereto (filed as Exhibit 10.1 to our Current Report on Form 8-K filed on June 23, 2023 (File No. 001-39548) and incorporated herein by reference)
31.1*	Certification of CEO pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended
31.2*	Certification of CFO pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended
32*	Certification of CEO and CFO Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	Inline XBRL Instance Document—the instance document does not appear in the Interactive Data File as its XBRL tags are embedded within the Inline XBRL document
101.SCH	Inline XBRL Taxonomy Extension Schema
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase
104	Cover page formatted as Inline XBRL and contained in Exhibit 101

* Filed or furnished herewith. The certification attached as Exhibit 32.1 that accompanies this Quarterly Report on Form 10-Q is not deemed filed with the U.S. Securities and Exchange Commission and is not to be incorporated by reference into any filing of Bentley Systems, Incorporated under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Quarterly Report on Form 10-Q, irrespective of any general incorporation language contained in such filing.

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.

	Bentley Systems, Incorporated	
Date: August 8, 2023	By:	/s/ WERNER ANDRE
		Werner Andre Chief Financial Officer and Chief Accounting Officer (Principal Financial Officer and Principal Accounting Officer)

Exhibit 31.1

Management Certification Pursuant to
Section 302 of the Sarbanes-Oxley Act of 2002

I, Gregory S. Bentley, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Bentley Systems, Incorporated (the “registrant”);

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

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

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

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

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

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

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

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

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

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

Date: August 8, 2023

/s/ GREGORY S. BENTLEY

Gregory S. Bentley
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

Management Certification Pursuant to
Section 302 of the Sarbanes-Oxley Act of 2002

I, Werner Andre, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Bentley Systems, Incorporated (the “registrant”);

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

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

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

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

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

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

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

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

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

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

Date: August 8, 2023

/s/ WERNER ANDRE

Werner Andre
Chief Financial Officer and Chief Accounting Officer
(Principal Financial Officer)

Exhibit 32

Certification of CEO and CFO Pursuant to
18 U.S.C. Section 1350,
as Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Quarterly Report of Bentley Systems, Incorporated (the “Company”) on Form 10-Q for the period ended June 30, 2023, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), each of the undersigned officers of the Company certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to his knowledge:

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

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

Date: August 8, 2023

/s/ GREGORY S. BENTLEY
Gregory S. Bentley
Chief Executive Officer
(Principal Executive Officer)

/s/ WERNER ANDRE
Werner Andre
Chief Financial Officer and Chief Accounting Officer
(Principal Financial Officer)