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

FORM 10-Q

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

For the quarterly period ended: June 30, 2021

or

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

For the transition period from ___________ to ___________

Commission File Number: 0-15386

CERNER CORPORATION
(Exact name of registrant as specified in its charter)

Delaware	**43-1196944**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
2800 Rock Creek Parkway **North Kansas City, MO**	**64117**
(Address of principal executive offices)	(Zip Code)

(816) 221-1024
(Registrant's telephone number, including area code)

____
(Former name, former address and former fiscal year, if changed since last report)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.01 par value per share	CERN	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 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 ☒

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Class	Outstanding at July 26, 2021
Common Stock, $0.01 par value per share	295,585,810 shares

CERNER CORPORATION

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Part I. Financial Information

Item 1. Financial Statements

CERNER CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS
As of June 30, 2021 (unaudited) and December 31, 2020

(In thousands, except share data)	2021	2020
Assets		
Current assets:		
Cash and cash equivalents	$ 246,404	$ 615,615
Short-term investments	638,488	442,473
Receivables, net	1,237,230	1,168,712
Inventory	20,168	23,027
Prepaid expenses and other	398,510	401,160
Total current assets	2,540,800	2,650,987
Property and equipment, net	1,768,617	1,804,083
Right-of-use assets	95,666	104,536
Software development costs, net	1,001,440	1,009,349
Goodwill	1,129,699	914,520
Intangible assets, net	492,547	329,249
Long-term investments	497,350	510,220
Other assets	194,983	198,152
Total assets	$ 7,721,102	$ 7,521,096
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	$ 332,959	$ 235,755
Current installments of long-term debt	225,000	—
Deferred revenue	429,219	393,293
Accrued payroll and tax withholdings	332,513	309,814
Other current liabilities	223,203	229,764
Total current liabilities	1,542,894	1,168,626
Long-term debt	1,611,154	1,336,069
Deferred income taxes	389,018	376,035
Other liabilities	151,552	157,799
Total liabilities	3,694,618	3,038,529
Shareholders' Equity:		
Common stock, $0.01 par value, 500,000,000 shares authorized, 376,935,912 shares issued at June 30, 2021 and 373,224,832 shares issued at December 31, 2020	3,769	3,732
Additional paid-in capital	2,509,545	2,288,806
Retained earnings	6,546,615	6,475,551
Treasury stock, 77,455,570 shares at June 30, 2021 and 67,371,686 shares at December 31, 2020	(4,914,718)	(4,164,718)
Accumulated other comprehensive loss, net	(118,727)	(120,804)
Total shareholders' equity	4,026,484	4,482,567
Total liabilities and shareholders' equity	$ 7,721,102	$ 7,521,096

See notes to condensed consolidated financial statements (unaudited).

CERNER CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
For the three and six months ended June 30, 2021 and June 30, 2020
(unaudited)

(In thousands, except per share data)	Three Months Ended 2021	Three Months Ended 2020	Six Months Ended 2021	Six Months Ended 2020
Revenues	$ 1,456,755	$ 1,330,349	$ 2,844,533	$ 2,742,090
Costs and expenses:				
Costs of revenue	261,325	211,963	491,981	466,379
Sales and client service	731,077	645,087	1,353,253	1,281,736
Software development (Includes amortization of $65,247 and $130,097 for the three and six months ended June 30, 2021, respectively; and $61,197 and $122,208 for the three and six months ended June 30, 2020, respectively)	241,600	178,955	433,927	364,275
General and administrative	156,307	134,332	268,672	274,184
Amortization of acquisition-related intangibles	16,886	13,114	29,082	30,242
Total costs and expenses	1,407,195	1,183,451	2,576,915	2,416,816
Operating earnings	49,560	146,898	267,618	325,274
Other income (loss), net	(1,678)	24,632	(472)	30,227
Earnings before income taxes	47,882	171,530	267,146	355,501
Income taxes	(15,175)	(36,782)	(62,187)	(73,594)
Net earnings	$ 32,707	$ 134,748	$ 204,959	$ 281,907
Basic earnings per share	$ 0.11	$ 0.44	$ 0.68	$ 0.92
Diluted earnings per share	$ 0.11	$ 0.44	$ 0.67	$ 0.91
Basic weighted average shares outstanding	300,737	304,776	302,723	307,256
Diluted weighted average shares outstanding	303,591	306,717	305,802	309,520

See notes to condensed consolidated financial statements (unaudited).

CERNER CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
For the three and six months ended June 30, 2021 and June 30, 2020
(unaudited)

	Three Months Ended		Six Months Ended	
(In thousands)	**2021**	**2020**	**2021**	**2020**
Net earnings	$ 32,707	$ 134,748	$ 204,959	$ 281,907
Foreign currency translation adjustment and other (net of taxes (benefit) of $250 and $(429) for the three and six months ended June 30, 2021, and $(88) and $337 for the three and six months ended June 30, 2020, respectively)	4,486	9,197	(4,505)	(11,349)
Unrealized gain (loss) on cash flow hedge (net of taxes (benefit) of $736 and $2,245 for the three and six months ended June 30, 2021, and $(332) and $(6,682) for the three and six months ended June 30, 2020, respectively)	2,238	(1,007)	6,826	(20,315)
Unrealized holding gain (loss) on available-for-sale investments (net of taxes (benefit) of $(9) and $(80) for the three and six months ended June 30, 2021, and $494 and $215 for the three and six months ended June 30, 2020, respectively)	(27)	1,502	(244)	653
Comprehensive income	$ 39,404	$ 144,440	$ 207,036	$ 250,896

See notes to condensed consolidated financial statements (unaudited).

CERNER CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
For the six months ended June 30, 2021 and June 30, 2020
(unaudited)

(In thousands)	Six Months Ended 2021	Six Months Ended 2020
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net earnings	$ 204,959	$ 281,907
Adjustments to reconcile net earnings to net cash provided by operating activities:		
Depreciation and amortization	354,567	343,941
Share-based compensation expense	101,891	72,580
Provision for deferred income taxes	3,232	12,884
Investment gains	—	(26,410)
Asset impairments	115,812	—
Changes in assets and liabilities (net of businesses acquired):		
Receivables, net	(41,751)	(48,426)
Inventory	2,868	5,509
Prepaid expenses and other	9,914	(36,431)
Accounts payable	54,088	(31,711)
Accrued income taxes	11,585	26,358
Deferred revenue	(676)	(66,137)
Other accrued liabilities	3,080	8,032
Net cash provided by operating activities	819,569	542,096
CASH FLOWS FROM INVESTING ACTIVITIES:		
Capital purchases	(199,281)	(166,296)
Capitalized software development costs	(167,108)	(151,393)
Purchases of investments	(558,686)	(91,957)
Sales and maturities of investments	380,156	81,022
Purchase of other intangibles	(16,031)	(20,656)
Acquisition of businesses, net of cash acquired	(349,869)	(35,766)
Net cash used in investing activities	(910,819)	(385,046)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Long-term debt issuance	500,000	300,000
Proceeds from exercise of stock options	154,900	156,908
Payments to taxing authorities in connection with shares directly withheld from associates	(36,346)	(14,217)
Treasury stock purchases	(750,000)	(650,000)
Dividends paid	(135,260)	(111,101)
Other	(8,672)	(4,159)
Net cash used in financing activities	(275,378)	(322,569)
Effect of exchange rate changes on cash and cash equivalents	(2,583)	(6,429)
Net decrease in cash and cash equivalents	(369,211)	(171,948)
Cash and cash equivalents at beginning of period	615,615	441,843
Cash and cash equivalents at end of period	$ 246,404	$ 269,895

See notes to condensed consolidated financial statements (unaudited).

CERNER CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
For the three and six months ended June 30, 2021 and June 30, 2020
(unaudited)

(In thousands)	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Loss, Net
Balance at December 28, 2019	**367,635**	**$ 3,676**	**$ 1,905,171**	**$ 5,934,909**	**$ (3,407,768)**	**$ (118,660)**
Exercise of stock options and vests of restricted shares and share units	2,543	26	114,050	—	—	—
Employee share-based compensation expense	—	—	35,031	—	—	—
Cumulative effect of accounting change (ASU 2016-13)	—	—	—	(4,606)	—	—
Other comprehensive income (loss)	—	—	—	—	—	(40,703)
Treasury stock purchases	—	—	—	—	(650,000)	—
Cash dividends declared ($0.18 per share)	—	—	—	(55,206)	—	—
Net earnings	—	—	—	147,159	—	—
Balance at March 31, 2020	**370,178**	**3,702**	**2,054,252**	**6,022,256**	**(4,057,768)**	**(159,363)**
Exercise of stock options and vests of restricted shares and share units	1,009	10	28,540	—	—	—
Employee share-based compensation expense	—	—	37,549	—	—	—
Other comprehensive income (loss)	—	—	—	—	—	9,692
Cash dividends declared ($0.18 per share)	—	—	—	(55,602)	—	—
Net earnings	—	—	—	134,748	—	—
Balance at June 30, 2020	**371,187**	**$ 3,712**	**$ 2,120,341**	**$ 6,101,402**	**$ (4,057,768)**	**$ (149,671)**
Balance at December 31, 2020	**373,225**	**$ 3,732**	**$ 2,288,806**	**$ 6,475,551**	**$ (4,164,718)**	**$ (120,804)**
Exercise of stock options and vests of restricted shares and share units	824	8	31,471	—	—	—
Employee share-based compensation expense	—	—	47,950	—	—	—
Other comprehensive income (loss)	—	—	—	—	—	(4,620)
Treasury stock purchases	—	—	—	—	(350,000)	—
Cash dividends declared ($0.22 per share)	—	—	—	(67,191)	—	—
Net earnings	—	—	—	172,252	—	—
Balance at March 31, 2021	**374,049**	**3,740**	**2,368,227**	**6,580,612**	**(4,514,718)**	**(125,424)**
Exercise of stock options and vests of restricted shares and share units	2,887	29	87,377	—	—	—
Employee share-based compensation expense	—	—	53,941	—	—	—
Other comprehensive income (loss)	—	—	—	—	—	6,697
Treasury stock purchases	—	—	—	—	(400,000)	—
Cash dividends declared ($0.22 per share)	—	—	—	(66,704)	—	—
Net earnings	—	—	—	32,707	—	—
Balance at June 30, 2021	**376,936**	**$ 3,769**	**$ 2,509,545**	**$ 6,546,615**	**$ (4,914,718)**	**$ (118,727)**

See notes to condensed consolidated financial statements (unaudited).

CERNER CORPORATION AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

(1) Interim Statement Presentation

Basis of Presentation

The condensed consolidated financial statements included herein have been prepared by Cerner Corporation ("Cerner," the "Company," "we," "us" or "our") without audit, pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC"). Certain information and footnote disclosures normally included in annual financial statements prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP") have been condensed or omitted pursuant to such rules and regulations. These condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and the notes thereto included in our latest annual report on Form 10-K.
In management's opinion, the accompanying unaudited condensed consolidated financial statements include all adjustments (consisting of only normal recurring adjustments) necessary to present fairly the financial position and the results of operations and cash flows for the periods presented. Our interim results as presented in this quarterly report on Form 10-Q are not necessarily indicative of the operating results for the entire year.

The condensed consolidated financial statements were prepared using GAAP. These principles require us to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities and the reported amounts of revenues and expenses. Actual results could differ from those estimates.

All references to quarters or six month periods ended 2021 and 2020 in these notes to condensed consolidated financial statements refer to the respective three and six month periods ended June 30, 2021 and June 30, 2020, unless otherwise noted.

Employee Separation Costs

In connection with involuntary separation benefits, we recognized $40 million and $12 million of expenses in the second quarters of 2021 and 2020, respectively; and $45 million and $15 million of expenses during the first six months of 2021 and 2020, respectively.

In connection with voluntary separation benefits, we recognized $14 million and $2 million of expenses in the second quarters of 2021 and 2020, respectively; and $27 million and $15 million of expenses during the first six months of 2021 and 2020, respectively.

Such employee separation costs are included in "General and administrative" expense in our condensed consolidated statements of operations.

At June 30, 2021, a liability of $48 million for such obligations is included in "Accrued payroll and tax withholdings" in our condensed consolidated balance sheets.

Real Estate Held For Sale

In connection with our operational improvement initiatives, during the second quarter of 2021 we made certain decisions regarding the continued use of certain of our owned real estate. As a result of those decisions, on July 9, 2021, we sold office space located in Kansas City, Missouri (known as our Oaks Campus), in April 2021 began the process of marketing office space located in Kansas City, Missouri (known as our Riverport Campus), and in June 2021 began the process of marketing office space located in Kansas City, Kansas (known as our Continuous Campus). At June 30, 2021, these long-lived assets aggregating $67 million were held for sale and presented within our condensed consolidated balance sheets in "Property and equipment, net." In connection with the designation as held for sale, during the three months ended June 30, 2021, we recorded a pre-tax charge of $68 million to reduce the amount of such long-lived assets to fair value, less estimated costs to sell. Such charge is included in "Sales and client service" expense in our condensed consolidated statements of operations.

Software Development Costs

In the second quarter of 2021, we recorded a pre-tax charge of $48 million to reduce the carrying amount of certain capitalized software development costs to estimated net realizable value. Such charge is included in "Software development" expense in our condensed consolidated statements of operations.

Supplemental Disclosures of Cash Flow Information

	Six Months Ended	
(In thousands)	**2021**	**2020**
Cash paid during the period for:		
Interest (including amounts capitalized of $5,514 and $8,831, respectively)	$ 20,190	$ 16,572
Income taxes, net of refunds	53,358	8,690
Non-cash items:		
Lease liabilities recorded upon the commencement of operating leases	7,743	22,270
Financed capital purchases	6,143	—

Recently Issued Accounting Pronouncements

Reference Rate Reform. The Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting* in March 2020 and ASU 2021-01, *Reference Rate Reform (Topic 848): Scope* in January 2021. Such guidance provides optional financial reporting alternatives to reduce the cost and complexity associated with the accounting for contracts and hedging relationships affected by reference rate reform, such as the upcoming discontinuance of the London Interbank Offered Rate ("LIBOR"). The accommodations within this guidance may be applied prospectively from the beginning of our 2020 first quarter through December 31, 2022. We are currently evaluating the effect that this guidance may have on our contracts that reference LIBOR, specifically, our Third Amended and Restated Credit Agreement (as amended, the "Credit Agreement") and related interest rate swap. As of the date of this filing, we have not elected to apply any of the provisions of this guidance.

(2) Business Acquisition

On April 1, 2021, we acquired Kantar Health, a division of Kantar Group. Kantar Health provides data, analytics, commercial research, and consulting services to the life sciences industry. We believe this acquisition complements our existing Data-as-a-Service efforts as it provides a meaningful entry into the pharmaceutical market through Kantar Health's existing clients and their leadership team with important industry experience and relationships. These factors, combined with the synergies and economies of scale expected, are the basis for the acquisition and comprise the resulting goodwill recorded.

Consideration for the acquisition was a base cash purchase price of $375 million. The base purchase price is subject to post-closing adjustments for working capital and certain other adjustments, as specified in the Securities Purchase Agreement dated December 16, 2020, as amended.

Our acquisition of Kantar Health is being treated as a purchase in accordance with ASC 805, *Business Combinations*, which requires allocation of the purchase price to the estimated fair values of the assets acquired and liabilities assumed in the transaction. The allocation of purchase price is based on management's judgment after evaluating several factors, including a preliminary valuation assessment. The allocation of purchase price is preliminary and subject to changes, as appraisals of intangible assets are finalized, working capital and certain other adjustments are agreed upon, and additional information becomes available. The following is a summary of the preliminary allocation of purchase price:

(In thousands)	**Allocation Amount**
Cash and cash equivalents	$ 14,541
Receivables, net	30,895
Prepaid expenses and other	13,860
Property and equipment, net	1,136
Right-of-use assets	1,680
Goodwill	210,247
Intangible assets, net:	
Customer relationships	143,100
Existing technologies	39,700
Trade names	10,200
Other assets	26
Accounts payable	(34,215)
Deferred revenue	(36,656)
Accrued payroll and tax withholdings	(9,910)
Other current liabilities	(3,777)
Deferred income taxes	(10,169)
Other liabilities	(6,248)
Total purchase price	$ 364,410

The fair values of the acquired intangible assets were estimated by applying the income approach. Such estimations required the use of inputs that were unobservable in the marketplace (Level 3), including a discount rate that we estimated would be used by a market participant in valuing these assets, projections of revenues and cash flows, and client attrition rates, among others. The acquired intangible assets are being amortized over a weighted-average period of 13 years. Refer to Note (7) for further information about the fair value level hierarchy.

The goodwill of $210 million was allocated among our Domestic and International operating segments, as shown below, with approximately $160 million of such goodwill expected to be deductible for tax purposes.

The changes in the carrying amounts of goodwill for the six months ended June 30, 2021 were as follows:

(In thousands)	Domestic	International	Total
Beginning balance at December 31, 2020	$ 854,188	$ 60,332	$ 914,520
Goodwill recorded in connection with the Kantar Health acquisition	118,386	91,861	210,247
Foreign currency translation adjustment and other	—	4,932	4,932
Ending balance at June 30, 2021	$ 972,574	$ 157,125	$ 1,129,699

Our condensed consolidated statements of operations for the three and six months ended June 30, 2021 include revenues of $45 million attributable to the acquired business since the April 1, 2021 acquisition date. The earnings contribution from the acquired business for the three and six months ended June 30, 2021 was not material to our condensed consolidated financial statements. Pro forma results of operations, assuming the acquisition was made at the beginning of the earliest period presented, have not been presented because the effect of this acquisition was not material to our results.

(3) Revenue Recognition

Disaggregation of Revenue

The following tables present revenues disaggregated by our business models:

	Three Months Ended					
	2021			2020		
(In thousands)	Domestic Segment	International Segment	Total	Domestic Segment	International Segment	Total
Licensed software	$ 157,908	$ 17,208	$ 175,116	$ 138,950	$ 13,212	$ 152,162
Technology resale	51,680	5,180	56,860	36,376	5,741	42,117
Subscriptions	94,222	4,215	98,437	85,281	6,771	92,052
Professional services	457,901	79,177	537,078	409,848	51,234	461,082
Managed services	284,758	36,019	320,777	275,679	31,479	307,158
Support and maintenance	211,986	47,689	259,675	220,301	53,735	274,036
Reimbursed travel	8,572	240	8,812	1,778	(36)	1,742
Total revenues	$ 1,267,027	$ 189,728	$ 1,456,755	$ 1,168,213	$ 162,136	$ 1,330,349

	Six Months Ended					
	2021			2020		
(In thousands)	Domestic Segment	International Segment	Total	Domestic Segment	International Segment	Total
Licensed software	$ 306,741	$ 30,036	$ 336,777	$ 285,447	$ 24,747	$ 310,194
Technology resale	89,571	12,961	102,532	80,825	12,779	93,604
Subscriptions	189,605	8,644	198,249	172,217	14,220	186,437
Professional services	892,063	139,437	1,031,500	862,632	109,796	972,428
Managed services	566,834	71,319	638,153	555,415	61,097	616,512
Support and maintenance	429,485	93,514	522,999	443,717	104,000	547,717
Reimbursed travel	14,720	(397)	14,323	14,375	823	15,198
Total revenues	$ 2,489,019	$ 355,514	$ 2,844,533	$ 2,414,628	$ 327,462	$ 2,742,090

The following tables present our revenues disaggregated by timing of revenue recognition:

	Three Months Ended					
	2021			2020		
(In thousands)	Domestic Segment	International Segment	Total	Domestic Segment	International Segment	Total
Revenue recognized over time	$ 1,189,314	$ 178,406	$ 1,367,720	$ 1,101,797	$ 151,456	$ 1,253,253
Revenue recognized at a point in time	77,713	11,322	89,035	66,416	10,680	77,096
Total revenues	$ 1,267,027	$ 189,728	$ 1,456,755	$ 1,168,213	$ 162,136	$ 1,330,349

	Six Months Ended					
	2021			2020		
(In thousands)	Domestic Segment	International Segment	Total	Domestic Segment	International Segment	Total
Revenue recognized over time	$ 2,342,163	$ 332,274	$ 2,674,437	$ 2,267,312	$ 304,900	$ 2,572,212
Revenue recognized at a point in time	146,856	23,240	170,096	147,316	22,562	169,878
Total revenues	$ 2,489,019	$ 355,514	$ 2,844,533	$ 2,414,628	$ 327,462	$ 2,742,090

Transaction Price Allocated to Remaining Performance Obligations

As of June 30, 2021, the aggregate amount of transaction price allocated to performance obligations that are unsatisfied (or partially unsatisfied) for executed contracts approximates $13.19 billion of which we expect to recognize approximately 30% of the revenue over the next 12 months and the remainder thereafter.

Contract Liabilities

Customer payments received in advance of satisfaction of the related performance obligations are deferred as contract liabilities. Such amounts are classified in our condensed consolidated balance sheets as "Deferred revenue". During the six months ended June 30, 2021, we recognized $259 million of revenues that were included in our contract liability balance at the beginning of such period.

Significant Customers

Revenues attributable to our relationships (as the prime contractor or a subcontractor) with U.S. government agencies, within our Domestic segment, comprised 20% and 17% of our consolidated revenues for the second quarters of 2021 and 2020, respectively; and 20% and 17% for the first six months of 2021 and 2020, respectively. Amounts due in connection with these relationships comprised 16% and 13% of client receivables as of June 30, 2021 and December 31, 2020, respectively.

(4) Receivables

A summary of net receivables is as follows:

(In thousands)	June 30, 2021	December 31, 2020
Client receivables	$ 1,389,724	$ 1,322,278
Less: Provision for expected credit losses	152,494	153,566
Total receivables, net	$ 1,237,230	$ 1,168,712

In addition to the client receivables presented above, at June 30, 2021 and December 31, 2020, we had $14 million and $17 million of non-current net client receivables, respectively, which are presented in "Other assets" in our condensed consolidated balance sheets.

A reconciliation of the beginning and ending amount of our provision for expected credit losses is as follows:

(In thousands)	Current	Non-current	Total
Provision for expected credit losses - balance at December 31, 2020	$ 153,566	$ 38,564	$ 192,130
Additions charged to costs and expenses	20,251	—	20,251
Deductions, foreign currency and other	2,278	—	2,278
Provision for expected credit losses - balance at March 31, 2021	176,095	38,564	214,659
Additions charged to costs and expenses	5,887	—	5,887
Reclassifications to non-current	(26,480)	26,480	—
Deductions, foreign currency and other	(3,008)	—	(3,008)
Provision for expected credit losses - balance at June 30, 2021	$ 152,494	$ 65,044	$ 217,538

Our estimates of expected credit losses for client receivables at both June 30, 2021 and December 31, 2020, were primarily based on historical credit loss experience and adjustments for certain asset-specific risk characteristics (i.e. known client financial hardship or bankruptcy). Exposure to credit losses may increase if our clients are adversely affected by changes in healthcare laws; changes in reimbursement or payor models; economic pressures or uncertainty associated with local or global economic recessions; disruption associated with the COVID-19 pandemic; or other client-specific factors. Although we have historically not experienced significant credit losses, it is possible that there could be an adverse impact from potential adjustments to the carrying amount of client receivables as clients' cash flows are impacted by the COVID-19 pandemic and related economic uncertainty, which may be material.

During the first six months of 2021 and 2020, we received total client cash collections of $2.90 billion and $2.66 billion, respectively.

(5) Investments

Available-for-sale investments at June 30, 2021 were as follows:

(In thousands)	Adjusted Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Cash equivalents:				
Money market funds	$ 52,425	$ —	$ —	$ 52,425
Time deposits	37,685	—	—	37,685
Total cash equivalents	90,110	—	—	90,110
Short-term investments:				
Time deposits	32,163	—	—	32,163
Commercial paper	354,800	27	(13)	354,814
Government and corporate bonds	251,453	112	(54)	251,511
Total short-term investments	638,416	139	(67)	638,488
Long-term investments:				
Government and corporate bonds	106,306	2	(108)	106,200
Total available-for-sale investments	$ 834,832	$ 141	$ (175)	$ 834,798

Available-for-sale investments at December 31, 2020 were as follows:

(In thousands)	Adjusted Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Cash equivalents:				
Money market funds	$ 40,027	$ —	$ —	$ 40,027
Time deposits	36,756	—	—	36,756
Commercial Paper	61,000	—	—	61,000
Total cash equivalents	137,783	—	—	137,783
Short-term investments:				
Time deposits	28,302	—	—	28,302
Commercial Paper	264,000	12	(19)	263,993
Government and corporate bonds	149,975	247	(44)	150,178
Total short-term investments	442,277	259	(63)	442,473
Long-term investments:				
Government and corporate bonds	136,983	152	(57)	137,078
Total available-for-sale investments	$ 717,043	$ 411	$ (120)	$ 717,334

We sold available-for-sale investments for proceeds of $80 million and $5 million during the six months ended June 30, 2021 and June 30, 2020, respectively, resulting in insignificant losses in each period.

Other Investments

At June 30, 2021 and December 31, 2020, we had investments in equity securities that do not have readily determinable fair values of $371 million and $361 million, respectively, accounted for in accordance with Accounting Standards Codification Topic ("ASC") 321, *Investments-Equity Securities*. Such investments are included in "Long-term investments" in our condensed consolidated balance sheets. We did not record any changes in the measurement of such investments during the six months ended June 30, 2021 and June 30, 2020, respectively.

At June 30, 2021 and December 31, 2020, we had investments in equity securities reported under the equity method of accounting of $20 million and $12 million, respectively. Such investments are included in "Long-term investments" in our condensed consolidated balance sheets.

(6) Long-term Debt

The following is a summary of indebtedness outstanding:

(In thousands)	June 30, 2021	December 31, 2020
Credit agreement loans due May 5, 2024	$ 600,000	$ 600,000
Senior notes:		
Series 2021-A due March 24, 2026	100,000	—
Series 2021-B due March 24, 2031	400,000	—
Series 2020-A due March 11, 2030	300,000	300,000
Series 2015-A due February 15, 2022	225,000	225,000
Series 2015-B due February 14, 2025	200,000	200,000
Other	11,662	11,662
Total indebtedness	1,836,662	1,336,662
Less: debt issuance costs	(508)	(593)
Indebtedness, net	1,836,154	1,336,069
Less: current installments of long-term debt	(225,000)	—
Long-term debt	$ 1,611,154	$ 1,336,069

Credit Agreement

As of June 30, 2021, the interest rate on revolving credit loans outstanding under our Credit Agreement was 0.87% based on LIBOR plus the applicable spread.

We are exposed to market risk from fluctuations in the variable interest rates on outstanding indebtedness under our Credit Agreement. In order to manage this exposure, we have entered into an interest rate swap agreement to hedge the variability of cash flows associated with such interest obligations. The interest rate swap is designated as a cash flow hedge, which effectively fixes the interest rate on the hedged indebtedness under our Credit Agreement at 3.06%. At June 30, 2021 and December 31, 2020, this swap was in a net liability position with an aggregate fair value of $28 million and $37 million, respectively; which is presented in our condensed consolidated balance sheets in "Other current liabilities".

Series 2021 Senior Notes

We entered into a Master Note Agreement on November 11, 2019, and subsequently amended on October 8, 2020 (collectively and as amended, the "2019 Shelf Agreement"), pursuant to which we may issue and sell up to an aggregate principal amount of $1.80 billion of unsecured senior promissory notes. In March 2021, we issued $500 million aggregate principal amount of unsecured senior notes (the "Series 2021 Senior Notes"), pursuant to the 2019 Shelf Agreement. The issuance consisted of $100 million of 2.00% Series 2021-A Notes due March 24, 2026 and $400 million of 2.59% Series 2021-B Notes due March 24, 2031. Interest on the Series 2021 Senior Notes is payable semiannually on each March 24 and September 24, commencing September 24, 2021, and the principal balance is due at maturity. The Company may prepay at any time all, or any part of, the outstanding principal amount of the Series 2021 Senior Notes, subject to the payment of a make-whole amount. The Series 2021 Senior Notes are subject to the terms of the 2019 Shelf Agreement, which contains customary events of default and covenants related to limitations on indebtedness and transactions with affiliates and the maintenance of certain financial ratios. As of the date of this filing, $1.00 billion remains available for sale under the 2019 Shelf Agreement, which is uncommitted and subject to participation by the purchasers.

(7) Fair Value Measurements

We determine fair value measurements used in our consolidated financial statements based upon the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value hierarchy distinguishes between (1) market participant assumptions developed based on market data obtained from independent sources (observable inputs) and (2) an entity's own assumptions about market participant assumptions developed based on the best information available in the circumstances (unobservable inputs). The fair value hierarchy consists of three broad levels, which gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy are described below:

- Level 1 – Valuations based on quoted prices in active markets for identical assets or liabilities that the entity has the ability to access.
- Level 2 – Valuations based on quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable data for substantially the full term of the assets or liabilities.
- Level 3 – Valuations based on inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The following table details our investments in available-for-sale debt securities measured and recorded at fair value on a recurring basis at June 30, 2021:

(In thousands)		Fair Value Measurements Using		
Description	**Balance Sheet Classification**	**Level 1**	**Level 2**	**Level 3**
Money market funds	Cash equivalents	$ 52,425	$ —	$ —
Time deposits	Cash equivalents	—	37,685	—
Time deposits	Short-term investments	—	32,163	—
Commercial paper	Short-term investments	—	354,814	—
Government and corporate bonds	Short-term investments	—	251,511	—
Government and corporate bonds	Long-term investments	—	106,200	—

The following table details our investments in available-for-sale debt securities measured and recorded at fair value on a recurring basis at December 31, 2020:

(In thousands)		Fair Value Measurements Using		
Description	**Balance Sheet Classification**	**Level 1**	**Level 2**	**Level 3**
Money market funds	Cash equivalents	$ 40,027	$ —	$ —
Time deposits	Cash equivalents	—	36,756	—
Commercial paper	Cash equivalents	—	61,000	—
Time deposits	Short-term investments	—	28,302	—
Commercial paper	Short-term investments	—	263,993	—
Government and corporate bonds	Short-term investments	—	150,178	—
Government and corporate bonds	Long-term investments	—	137,078	—

Our interest rate swap agreement is measured and recorded at fair value on a recurring basis using a Level 2 valuation. The fair value of such agreement is based on the market standard methodology of netting the discounted expected future variable cash receipts and the discounted future fixed cash payments. The variable cash receipts are based on an expectation of future interest rates derived from observed market interest rate forward curves. Since these inputs are observable in active markets over the terms that the instrument is held, the derivative is classified as Level 2 in the hierarchy.

We estimate the fair value of our long-term, fixed rate debt using a Level 3 discounted cash flow analysis based on current borrowing rates for debt with similar maturities. We estimate the fair value of our long-term, variable rate debt using a

Level 3 discounted cash flow analysis based on LIBOR rate forward curves. The fair value of our long-term debt at June 30, 2021 and December 31, 2020 was approximately $1.88 billion and $1.36 billion, respectively. The carrying amount of such debt at June 30, 2021 and December 31, 2020 was $1.83 billion and $1.33 billion, respectively.

(8) Income Taxes

We determine the tax provision for interim periods using an estimate of our annual effective tax rate, adjusted for discrete items, if any, that are taken into account in the relevant period. Each quarter we update our estimate of the annual effective tax rate, and if our estimated tax rate changes, we make a cumulative adjustment. Our effective tax rate was 23.3% and 20.7% for the first six months of 2021 and 2020, respectively. A $6 million valuation allowance was recorded in the second quarter of 2021 against a deferred tax asset where it became more likely than not that such deferred tax asset will not be realized, while a valuation allowance of $3 million was recorded during the first quarter of 2020. The remainder of the increase in the effective tax rate is primarily related to unfavorability of permanent book-tax differences for share-based compensation in 2021 compared to 2020.

(9) Earnings Per Share

A reconciliation of the numerators and the denominators of the basic and diluted per share computations are as follows:

	Three Months Ended					
	2021			2020		
(In thousands, except per share data)	Earnings (Numerator)	Shares (Denominator)	Per-Share Amount	Earnings (Numerator)	Shares (Denominator)	Per-Share Amount
Basic earnings per share:						
Income available to common shareholders	$ 32,707	300,737	$ 0.11	$ 134,748	304,776	$ 0.44
Effect of dilutive securities:						
Stock options, non-vested shares and share units	—	2,854		—	1,941	
Diluted earnings per share:						
Income available to common shareholders including assumed conversions	$ 32,707	303,591	$ 0.11	$ 134,748	306,717	$ 0.44

For the three months ended June 30, 2021 and June 30, 2020, options to purchase 0.4 million and 6.0 million shares of common stock at per share prices ranging from $52.32 to $76.49 and $52.32 to $76.49, respectively, were outstanding but were not included in the computation of diluted earnings per share because they were anti-dilutive.

	Six Months Ended					
	2021			2020		
(In thousands, except per share data)	Earnings (Numerator)	Shares (Denominator)	Per-Share Amount	Earnings (Numerator)	Shares (Denominator)	Per-Share Amount
Basic earnings per share:						
Income available to common shareholders	$ 204,959	302,723	$ 0.68	$ 281,907	307,256	$ 0.92
Effect of dilutive securities:						
Stock options, non-vested shares and share units	—	3,079		—	2,264	
Diluted earnings per share:						
Income available to common shareholders including assumed conversions	$ 204,959	305,802	$ 0.67	$ 281,907	309,520	$ 0.91

For the six months ended June 30, 2021 and June 30, 2020, options to purchase 0.5 million and 4.5 million shares of common stock at per share prices ranging from $52.32 to $76.49 and $52.32 to $76.49, respectively, were outstanding but were not included in the computation of diluted earnings per share because they were anti-dilutive.

(10) Share-Based Compensation and Equity

Stock Options

Stock option activity for the six months ended June 30, 2021 was as follows:

(In thousands, except per share and term data)	Number of Shares	Weighted-Average Exercise Price (Per Share)	Aggregate Intrinsic Value	Weighted-Average Remaining Contractual Term (Yrs)
Outstanding at beginning of year	10,204	$ 58.59		
Exercised	(2,763)	56.18		
Forfeited and expired	(108)	59.56		
Outstanding as of June 30, 2021	7,333	$ 59.49	$ 136,929	4.57
Exercisable as of June 30, 2021	5,484	$ 58.79	$ 106,205	3.99

As of June 30, 2021, there was $28 million of total unrecognized compensation cost related to stock options granted under all plans. That cost is expected to be recognized over a weighted-average period of 1.59 years.

Non-vested Shares and Share Units

Non-vested share and share unit activity for the six months ended June 30, 2021 was as follows:

(In thousands, except per share data)	Number of Shares	Weighted-Average Grant Date Fair Value Per Share
Outstanding at beginning of year	4,131	$ 68.05
Granted	2,054	77.01
Vested	(1,435)	65.80
Forfeited	(332)	72.08
Outstanding as of June 30, 2021	4,418	$ 72.64

As of June 30, 2021, there was $249 million of total unrecognized compensation cost related to non-vested share and share unit awards granted under all plans. That cost is expected to be recognized over a weighted-average period of 2.23 years.

Share-Based Compensation Cost

The following table presents total compensation expense recognized with respect to stock options, non-vested shares and share units, and our associate stock purchase plan:

	Three Months Ended		Six Months Ended	
(In thousands)	2021	2020	2021	2020
Stock option and non-vested share and share unit compensation expense	$ 53,941	$ 37,549	$ 101,891	$ 72,580
Associate stock purchase plan expense	1,613	1,727	3,161	2,828
Amounts capitalized in software development costs, net of amortization	(1,463)	(1,076)	(3,126)	(1,821)
Amounts charged against earnings, before income tax benefit	$ 54,091	$ 38,200	$ 101,926	$ 73,587
Amount of related income tax benefit recognized in earnings	$ 10,191	$ 8,191	$ 20,447	$ 14,634

Treasury Stock

Under our share repurchase program, which was initially approved by our Board of Directors on May 23, 2017, and most recently amended on December 12, 2019 (the "2017 Share Repurchase Program"), the Company is authorized to repurchase up to $3.70 billion of shares of our common stock, excluding transaction costs. The repurchases are to be effectuated in the open market, by block purchase, in privately negotiated transactions, or through other transactions managed by broker-dealers, or any combination thereof. No time limit was set for the completion of the 2017 Share Repurchase Program.

On April 23, 2021, our Board of Directors approved a new share repurchase program (the "2021 Share Repurchase Program"), which authorizes the Company to repurchase up to $3.75 billion in the aggregate of shares of our common stock, excluding transaction costs. The 2021 Share Repurchase Program is incremental to our 2017 Share Repurchase Program. The repurchases are to be effectuated in the open market, by block purchase, in privately negotiated transactions, or through other transactions managed by broker-dealers, or any combination thereof. The 2021 Share Repurchase Program will expire on December 31, 2023.

During the six months ended June 30, 2021, we repurchased 10.1 million shares for total consideration of $750 million under our share repurchase programs. The shares were recorded as treasury stock and accounted for under the cost method. No repurchased shares have been retired. As of June 30, 2021, an aggregate of $3.93 billion remained available for repurchase under the programs.

Dividends

On March 25, 2021, our Board of Directors declared a cash dividend of $0.22 per share on our issued and outstanding common stock, which was paid on April 20, 2021 to shareholders of record as of April 6, 2021. On May 19, 2021, our Board of Directors declared a cash dividend of $0.22 per share on our issued and outstanding common stock, which was paid on July 13, 2021 to shareholders of record as of June 28, 2021. In connection with the declaration of such dividends, our non-vested shares and share units are entitled to dividend equivalents, which will be payable to the holder subject to, and upon vesting of, the underlying awards. Our outstanding stock options are not entitled to dividend or dividend equivalents. At June 30, 2021 and December 31, 2020, our condensed consolidated balance sheets included liabilities for dividends payable of $68 million and $69 million, respectively, which are included in "Other current liabilities".

Accumulated Other Comprehensive Loss, Net (AOCI)

The components of AOCI, net of tax, were as follows:

(In thousands)	Foreign currency translation adjustment and other	Unrealized loss on cash flow hedge	Unrealized holding gain (loss) on available-for-sale investments	Total
Balance at December 31, 2020	$ (93,450)	$ (27,788)	$ 434	$ (120,804)
Other comprehensive income (loss) before reclassifications	(8,991)	2,061	(217)	(7,147)
Amounts reclassified from AOCI	—	2,527	—	2,527
Balance at March 31, 2021	(102,441)	(23,200)	217	(125,424)
Other comprehensive income (loss) before reclassifications	4,486	(429)	(26)	4,031
Amounts reclassified from AOCI	—	2,667	(1)	2,666
Balance at June 30, 2021	$ (97,955)	$ (20,962)	$ 190	$ (118,727)

(In thousands)	Foreign currency translation adjustment and other	Unrealized loss on cash flow hedge	Unrealized holding gain (loss) on available-for-sale investments	Total
Balance at December 28, 2019	$ (106,347)	$ (12,578)	$ 265	$ (118,660)
Other comprehensive income (loss) before reclassifications	(20,546)	(20,430)	(849)	(41,825)
Amounts reclassified from AOCI	—	1,122	—	1,122
Balance at March 31, 2020	(126,893)	(31,886)	(584)	(159,363)
Other comprehensive income (loss) before reclassifications	9,197	(3,205)	1,502	7,494
Amounts reclassified from AOCI	—	2,198	—	2,198
Balance at June 30, 2020	$ (117,696)	$ (32,893)	$ 918	$ (149,671)

The effects on net earnings of amounts reclassified from AOCI were as follows:

(In thousands)		Three Months Ended		Six Months Ended	
AOCI Component	Location	2021	2020	2021	2020
Unrealized loss on cash flow hedge	Other income, net	$ (3,287)	$ (2,798)	$ (6,504)	$ (4,170)
	Income taxes	620	600	1,310	850
	Net of tax	(2,667)	(2,198)	(5,194)	(3,320)
Unrealized holding gain (loss) on available-for-sale investments	Other income, net	2	—	2	—
	Income taxes	(1)	—	(1)	—
	Net of tax	1	—	1	—
Total amount reclassified, net of tax		$ (2,666)	$ (2,198)	$ (5,193)	$ (3,320)

(11) Contingencies

We accrue estimates for resolution of any legal and other contingencies when losses are probable and reasonably estimable in accordance with ASC 450, *Contingencies* ("ASC 450"). No less than quarterly, and as facts and circumstances change, we review the status of each significant matter underlying a legal proceeding or claim and assess our potential financial exposure. We accrue a liability for an estimated loss if the potential loss from any legal proceeding or claim is considered probable and the amount can be reasonably estimated. Significant judgment is required in both the determination of probability and the determination as to whether the amount of an exposure is reasonably estimable, and accruals are based only on the information available to our management at the time the judgment is made, which may prove to be incomplete or inaccurate or unanticipated events and circumstances may occur that might cause us to change those estimates and assumptions. Furthermore, the outcome of legal proceedings is inherently uncertain, and we may incur substantial defense costs and expenses defending any of these matters. Should any one or a combination of more than one of these proceedings be successful, or should we determine to settle any one or a combination of these matters, we may be required to pay substantial sums, become subject to the entry of an injunction or be forced to change the manner in which we operate our business, which could have a material adverse impact on our business, results of operations, cash flows or financial condition.
Cerner Health Services, Inc. ("Cerner HS"), a wholly owned subsidiary of Cerner Corporation, filed a lawsuit in the Chester County, Pennsylvania, Court of Common Pleas against NextGen Healthcare Information Systems, LLC ("NextGen") relating to a dispute arising out of a supplier relationship initially established between Siemens Health Services, Inc. and NextGen prior to the acquisition of the assets of Siemens Health Services, Inc. by Cerner HS in 2015. In September 2017, the court issued a preliminary injunction to prevent NextGen from refusing to honor certain contractual obligations to support Cerner HS's clients who use NextGen ambulatory EHR solutions. In September 2018, NextGen filed a counterclaim alleging breach of contract and tortious interference. NextGen’s expert testified at trial that NextGen should be entitled to collect profit disgorgement damages of $122 million or, at least $18 million of ambulatory-

related disgorgement damages. Alternatively, he claimed NextGen should recover $26 million in lost profit damages. A remote trial commenced on January 25, 2021 and trial continues. We believe NextGen's claims are without merit and are vigorously defending against them; however, there can be no assurances as to the outcome of the dispute. We have not concluded that a loss related to the claims raised by NextGen in its counterclaim is probable, nor have we accrued a liability related to these claims. Although a loss may be reasonably possible (as defined in ASC 450), we do not have sufficient information to determine the amount or range of reasonably possible loss in light of the inherent difficulty of predicting the outcome of litigation generally, the wide range of damages presented by NextGen's expert, and the continued lack of clarity on the causal connection between Cerner Corporation's and Cerner HS's actions and any alleged damages.

The terms of our agreements with our clients generally provide for limited indemnification of such clients against losses, expenses and liabilities arising from third party or other claims based on, among other things, alleged infringement by our solutions of an intellectual property right of third parties or damages caused by data privacy breaches or system interruptions. The terms of such indemnification often limit the scope of and remedies for such indemnification obligations and generally include, as applicable, a right to replace or modify an infringing solution. For several reasons, including the lack of a sufficient number of prior indemnification claims relating to intellectual property infringement, data privacy breaches or system interruptions, the inherent uncertainty stemming from such claims, and the lack of a monetary liability limit for such claims under the terms of the corresponding agreements with our clients, we cannot determine the maximum amount of potential future payments, if any, related to such indemnification provisions.

In addition to commitments and obligations in the ordinary course of business, we are involved in various other legal proceedings and claims that arise in the ordinary course of business, including for example, employment and client disputes and litigation alleging solution and implementation defects, personal injury, intellectual property infringement, violations of law, breaches of contract and warranties, and compliance audits by various government agencies. Many of these proceedings are at preliminary stages and many seek an indeterminate amount of damages. At this time, we do not believe the range of potential losses under any claims to be material to our consolidated financial statements.

(12) Segment Reporting

We have two operating segments, Domestic and International. Revenues are derived primarily from the sale of clinical, financial and administrative information solutions and services. The cost of revenues includes the cost of third-party consulting services, computer hardware, devices and sublicensed software purchased from manufacturers for delivery to clients. It also includes the cost of hardware maintenance and sublicensed software support subcontracted to the manufacturers. Operating expenses incurred by the geographic business segments consist of sales and client service expenses including salaries of sales and client service personnel, expenses associated with our managed services business, marketing expenses, communications expenses and unreimbursed travel expenses. "Other" includes expenses that have not been allocated to the operating segments, such as software development, general and administrative expenses, certain organizational restructuring and other expense, share-based compensation expense, and certain amortization and depreciation. Performance of the segments is assessed at the operating earnings level by our chief operating decision maker, who is our Chief Executive Officer. Items such as interest, income taxes, capital expenditures and total assets are managed at the consolidated level and thus are not included in our operating segment disclosures. Accounting policies for each of the reportable segments are the same as those used on a consolidated basis.

The following table presents a summary of our operating segments and other expense for the three and six months ended June 30, 2021 and June 30, 2020:

(In thousands)	Domestic	International	Other	Total
Three Months Ended 2021				
Revenues	$ 1,267,027	$ 189,728	$ —	$ 1,456,755
Costs of revenue	232,225	29,100	—	261,325
Operating expenses	656,369	74,708	414,793	1,145,870
Total costs and expenses	888,594	103,808	414,793	1,407,195
Operating earnings (loss)	$ 378,433	$ 85,920	$ (414,793)	$ 49,560

(In thousands)	Domestic	International	Other	Total
Three Months Ended 2020				
Revenues	$ 1,168,213	$ 162,136	$ —	$ 1,330,349
Costs of revenue	189,779	22,184	—	211,963
Operating expenses	587,674	57,413	326,401	971,488
Total costs and expenses	777,453	79,597	326,401	1,183,451
Operating earnings (loss)	$ 390,760	$ 82,539	$ (326,401)	$ 146,898

(In thousands)	Domestic	International	Other	Total
Six Months Ended 2021				
Revenues	$ 2,489,019	$ 355,514	$ —	$ 2,844,533
Costs of revenue	437,919	54,062	—	491,981
Operating expenses	1,216,931	136,322	731,681	2,084,934
Total costs and expenses	1,654,850	190,384	731,681	2,576,915
Operating earnings (loss)	$ 834,169	$ 165,130	$ (731,681)	$ 267,618

(In thousands)	Domestic	International	Other	Total
Six Months Ended 2020				
Revenues	$ 2,414,628	$ 327,462	$ —	$ 2,742,090
Costs of revenue	418,346	48,033	—	466,379
Operating expenses	1,157,768	123,968	668,701	1,950,437
Total costs and expenses	1,576,114	172,001	668,701	2,416,816
Operating earnings (loss)	$ 838,514	$ 155,461	$ (668,701)	$ 325,274

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

The following Management Discussion and Analysis ("MD&A") is intended to help the reader understand the results of operations and financial condition of Cerner Corporation ("Cerner," the "Company," "we," "us" or "our"). This MD&A is provided as a supplement to, and should be read in conjunction with, our condensed consolidated financial statements and the accompanying notes to condensed consolidated financial statements ("Notes") found above. Certain statements in this quarterly report on Form 10-Q contain forward-looking statements within the meanings of the Private Securities Litigation Reform Act of 1995, as amended, regarding our future plans, objectives, beliefs, expectations, representations and projections. See the end of this MD&A for more information on our forward-looking statements, including a discussion of the most significant factors that could cause actual results to differ materially from those in the forward-looking statements.

All references to quarters or six month periods ended 2021 and 2020 in this MD&A represent the respective three and six month periods ended June 30, 2021 and June 30, 2020, unless otherwise noted.

Management Overview

Our revenues are primarily derived by selling, implementing, operating and supporting software solutions, clinical content, hardware, devices and services that give healthcare providers and other stakeholders secure access to clinical, administrative and financial data in real or near-real time, helping them to improve quality, safety and efficiency in the delivery of healthcare.

Our core strategy is to create organic growth by investing in research and development to create solutions and tech-enabled services for the healthcare industry. We expect to also supplement organic growth with acquisitions or strategic investments and collaborations.

Cerner's long history of growth has created an important strategic footprint in healthcare, with Cerner holding approximately 25 percent market share in the U.S. acute care electronic health record ("EHR") market and a leading market share in several non-U.S. regions. Foundational to our growth going forward is delivering value to this core client base, including executing effectively on our large U.S. federal contracts and cross-selling key solutions and services in areas such as revenue cycle. We are also investing in platform modernization, with a focus on delivering a software as a service platform that we expect to lower total cost of ownership, improve clinician experience and patient outcomes, and enable clients to accelerate adoption of new functionality and better leverage third-party innovations.

We also expect to continue driving growth by leveraging our *HealtheIntent*® platform, which is the foundation for established and new offerings for both provider and non-provider markets. The EHR-agnostic *HealtheIntent* platform enables Cerner to become a strategic partner with healthcare stakeholders and help them improve performance under value-based contracting. The platform, along with our *CareAware*® platform, also supports offerings in areas such as long-term care, home care and hospice, rehabilitation, behavioral health, community care, care team communications, health systems operations, consumer and employer, and data-as-a-service.

Beyond our strategy for driving revenue growth, we are also focused on earnings growth. After several years of margin compression related to slowing revenue growth, increased mix of low-margin services, and lower software demand due to the end of direct government incentives for EHR adoption, Cerner implemented a new operating structure and introduced other initiatives focused on cost optimization and process improvement in 2019. To assist in these efforts, we engaged an outside consulting firm to conduct a review of our operations and cost structure. We have made good progress since we kicked off our transformation in 2019 and expect this progress to be reflected in improved profitability going forward. We are focused on ongoing identification of opportunities to operate more efficiently and on achieving the efficiencies without impacting the quality of our solutions and services and commitments to our clients.

We are also focused on delivering strong levels of cash flow which we expect to accomplish by continuing to grow earnings and prudently managing capital expenditures. We expect to use future cash flow and debt, as appropriate, to meet our capital allocation objectives, which include investing in our business, entering into acquisitions or other strategic investments to drive profitable growth, and returning capital to shareholders through share repurchases and dividends.

COVID-19

Our business and results of operations for the first six months of both 2021 and 2020 were impacted by the ongoing COVID-19 pandemic. It has caused us to modify certain of our business practices, including requiring most of our associates to work remotely; restricting associate travel; developing social distancing plans for our associates; and canceling or postponing in person participation in certain meetings, events and conferences. It is not possible to quantify the full financial impact that the COVID-19 pandemic has had on our results of operations, cash flows, or financial condition, due to the uncertainty surrounding the pandemic, the difficulty inherent in identifying and measuring the various impacts that have or may stem from such an event and the fact that there are no comparable recent events that provide guidance as to how to measure or predict the effect the COVID-19 pandemic may have on our business. However, we believe COVID-19 has impacted, and could continue in the near-term to impact, our business results, primarily, but not limited to, in the following areas:

- Bookings, backlog and revenues – A decline in new business bookings as certain client purchasing decisions and projects are delayed to focus on treating patients, procuring necessary medical supplies, administering vaccines, and managing their own organizations through this crisis. This decline in bookings flows through to reduced backlog and lower subsequent revenues.

- Associate productivity – A decline in associate productivity, primarily for our services personnel, as a large amount of work is typically done at client sites, which is being impacted by travel restrictions and our clients' focus on the pandemic. Our clients' focus on the pandemic has also led to pauses on existing projects and postponed start dates for others, which translates into lower professional services revenues and a lower operating margin percentage. We are mitigating this by doing more work remotely than we have in the past, but we cannot fully offset the negative impact.

- Travel – Associate travel restrictions reduce client-related travel, which reduces reimbursed travel revenues and lowers our costs of revenue as a percent of revenues. Such restrictions also reduce non-reimbursable travel, which lowers operating expenses.

- Cash collections – A delay in client cash collections due to COVID-19's impact on national reimbursement processes, and client focus on managing their own organizations' liquidity during this time. This translates to lower cash flows from operating activities, and a higher days sales outstanding metric. Lower cash flows from operating activities may impact how we execute under our capital allocation strategy.

- Capital expenditures – A decline in capital spending as certain capital projects are delayed or strategies evolve.

We believe the impact of COVID-19 on our results of operations for the first quarter of 2020 was limited, due to the mid-March 2020 timing of when we implemented changes to our business practices in response to COVID-19, and the nature of the industry in which we operate. We believe the most significant impact of COVID-19 on our business was in the second quarter of 2020, with the impact beginning to moderate in subsequent periods but still persisting into 2021 due to some ongoing restrictive measures and certain regions dealing with resurgences of cases.

While we expect a negative financial impact to continue in 2021, we do not expect it to be as significant as 2020. The impact will continue to be difficult to quantify as there are many factors that continue to be outside of our control, so any forward looking statements that we make regarding our projections of future financial performance; new solutions and services; capital allocation plans; cost optimization and operational improvement initiatives; and the expected benefits of our acquisitions, divestitures or other collaborations are all subject to increased risks.

Operational Improvement Initiatives

The Company has continued to focus on leveraging the impact of our new operating structure and identifying additional efficiencies in our business. We continue to be focused on reducing operating expenses and generating other efficiencies that are expected to provide longer-term operating margin expansion. We are continuing our portfolio management, which includes ongoing evaluation of our offerings, exiting certain low-margin businesses, and being more selective as we consider new business opportunities. To assist in these efforts, we engaged an outside consulting firm to conduct a review of our operations and cost structure. As part of our portfolio management, we closed on the sale of certain of our business operations, primarily conducted in Germany and Spain, in July 2020, and the sale of certain of our revenue cycle outsourcing business operations in August 2020. We have also made the decision to sell certain of our owned real estate.

We expect to continue to evaluate and potentially complete divestiture transactions that are strategic to our operational improvement initiatives. We continue to be focused on ongoing identification of opportunities to operate more efficiently and on achieving the efficiencies without impacting the quality of our solutions and services and commitments to our clients.

In the near term, we expect to incur expenses in connection with these efforts. Such expenses may include, but are not limited to, consultant and other professional services fees, employee separation costs, contract termination costs, asset impairment charges, and other such related expenses. Expenses recognized in the first six months of 2021 and 2020 primarily related to professional services fees, employee separation costs, and asset impairment charges which are included in operating expenses in our condensed consolidated statements of operations. We expect to incur additional expenses in connection with these initiatives in future periods, which may be material.

Results Overview

Bookings, which reflects the value of executed contracts for software, hardware, professional services and managed services, was $1.36 billion in the second quarter of 2021, which is an increase of 2% compared to $1.34 billion in the second quarter of 2020.

Revenues for the second quarter of 2021 increased 10% to $1.46 billion, compared to $1.33 billion in the second quarter of 2020.

Net earnings for the second quarter of 2021 decreased 76% to $33 million, compared to $135 million in the second quarter of 2020. Diluted earnings per share decreased 75% to $0.11, compared to $0.44 in the second quarter of 2020.

We had cash collections of receivables of $1.46 billion in the second quarter of 2021, compared to $1.29 billion in the second quarter of 2020. Days sales outstanding was 77 days in the second quarter of 2021, compared to 77 days for the first quarter of 2021 and 81 days for the second quarter of 2020. Operating cash flows for the second quarter of 2021 were $369 million, compared to $259 million in the second quarter of 2020.

Results of Operations

Three Months Ended June 30, 2021 Compared to Three Months Ended June 30, 2020

The following table presents a summary of our operating information for the second quarters of 2021 and 2020:

(In thousands)	2021	*% of Revenue*	2020	*% of Revenue*	% Change
Revenues	$ 1,456,755	100 %	$ 1,330,349	100 %	10 %
Costs of revenue	261,325	18 %	211,963	16 %	23 %
Margin	1,195,430	82 %	1,118,386	84 %	7 %
Operating expenses					
Sales and client service	731,077	50 %	645,087	48 %	13 %
Software development	241,600	17 %	178,955	13 %	35 %
General and administrative	156,307	11 %	134,332	10 %	16 %
Amortization of acquisition-related intangibles	16,886	1 %	13,114	1 %	29 %
Total operating expenses	1,145,870	79 %	971,488	73 %	18 %
Total costs and expenses	1,407,195	97 %	1,183,451	89 %	19 %
Operating earnings	49,560	3 %	146,898	11 %	(66)%
Other income (loss), net	(1,678)		24,632		
Income taxes	(15,175)		(36,782)		
Net earnings	$ 32,707		$ 134,748		(76)%

Revenues & Backlog

Revenues increased 10% to $1.46 billion in the second quarter of 2021, as compared to $1.33 billion in the same period of 2020. The following factors impacted the year-over-year change in revenues:

- Increased implementation activity during the second quarter of 2021 within our federal business, inclusive of ongoing projects with the U.S. Department of Defense and the U.S. Department of Veterans Affairs. In the second quarter of 2021, 20% of our total revenues were attributable to our relationships (as the prime contractor or a subcontractor) with U.S. government agencies, compared to 17% in the same period of 2020.

- The second quarter of 2021 includes a $45 million increase in revenues due to contributions from our April 1, 2021 acquisition of the Kantar Health business. We expect the acquired business to contribute over $85 million of additional revenues over the remainder of 2021. Refer to Note (2) of the Notes for further information regarding the Kantar Health acquisition.

- Moderate recovery from the impact of the COVID-19 pandemic, which we believe had the most significant unfavorable impact to our business operations in the second quarter of 2020, as further discussed above. The largest impact was in the areas of licensed software, technology resale, professional services, and reimbursed travel revenues.

- The second quarter of 2021 includes a $20 million reduction in revenues due to the sale of certain of our revenue cycle outsourcing business operations to affiliates of R1 RCM Inc., on August 3, 2020.

- The second quarter of 2021 includes a $19 million reduction in revenues due to the sale of certain of our business operations primarily conducted in Germany and Spain to affiliates of CompuGroup Medical SE & Co. KGaA on July 1, 2020.

Refer to Note (3) of the Notes for further information regarding revenues disaggregated by our business models.

Backlog, which reflects contracted revenue that has not yet been recognized as revenue, was $13.19 billion at June 30, 2021, compared to $13.04 billion at December 31, 2020. We expect to recognize 30% of our backlog as revenue over the next 12 months.

We believe that backlog may not necessarily be a comprehensive indicator of future revenue as certain of our arrangements may be canceled (or conversely renewed) at our clients' option; thus contract consideration related to such cancellable periods has been excluded from our calculation of backlog. However, historically our experience has been that such cancellation provisions are rarely exercised. We expect to recognize approximately $1.07 billion of revenue over the next 12 months under currently executed contracts related to such cancellable periods, which is not included in our calculation of backlog.

Costs of Revenue

Costs of revenue as a percent of revenues were 18% in the second quarter of 2021, compared to 16% in the same period of 2020. The higher costs of revenue as a percent of revenues was primarily driven by higher reimbursed travel revenue, which carries a 100% cost of revenue; a higher mix of technology resale revenue, which carries a high cost of revenue; and the impact of the Kantar Health business acquired on April 1, 2021.

Costs of revenue include the cost of reimbursed travel expense, sales commissions, third-party consulting services and subscription content and computer hardware, devices and sublicensed software purchased from manufacturers for delivery to clients. It also includes the cost of hardware maintenance and sublicensed software support subcontracted to the manufacturers. Such costs, as a percent of revenues, typically have varied as the mix of revenue (software, hardware, devices, maintenance, support, and services) carrying different margin rates changes from period to period. Costs of revenue does not include the costs of our client service personnel who are responsible for delivering our service offerings. Such costs are included in sales and client service expense.

Operating Expenses

Total operating expenses increased 18% to $1.15 billion in the second quarter of 2021, compared to $971 million in the same period of 2020.

- Sales and client service expenses as a percent of revenues were 50% in the second quarter of 2021, compared to 48% in the same period of 2020. These expenses increased 13% to $731 million in the second quarter of 2021, from $645 million in the same period of 2020. Sales and client service expenses include salaries and benefits of sales, marketing, support, and services personnel, depreciation and other expenses associated with our managed services business, communications expenses, unreimbursed travel expenses, expense for share-based payments, and trade show and advertising costs. The increase in sales and client service expenses was primarily driven by a $68 million pre-tax charge recorded in the second quarter of 2021 in connection with the designation of certain real estate assets as held for sale. Refer to Note (1) of the Notes for further information.

- Software development expenses as a percent of revenues were 17% in the second quarter of 2021, compared to 13% in the same period of 2020. Expenditures for software development include ongoing development and enhancement of the *Cerner Millennium®* and *HealtheIntent* platforms, as well as other key initiatives such as platform modernization, with a focus on development of a software as a service platform. A summary of our total software development expense in the second quarters of 2021 and 2020 is as follows:

	Three Months Ended	
(In thousands)	**2021**	**2020**
Software development costs	$ 212,258	$ 195,296
Capitalized software costs	(81,306)	(75,850)
Capitalized costs related to share-based payments	(2,252)	(1,688)
Amortization of capitalized software costs	65,247	61,197
Net realizable value charge (see Note (1) of the Notes)	47,653	—
Total software development expense	$ 241,600	$ 178,955

- General and administrative expenses as a percent of revenues were 11% in the second quarter of 2021, compared to 10% in the same period of 2020. These expenses increased 16% to $156 million in the second quarter of 2021, from $134 million in the same period of 2020. General and administrative expenses include salaries and benefits for corporate, financial and administrative staffs, utilities, communications expenses, professional fees, depreciation and amortization, transaction gains or losses on foreign currency, expense for share-based payments, certain organizational restructuring and other expense. The increase in general and administrative expenses was primarily driven by increased employee separation costs recognized in connection with our operational improvement initiatives, as further discussed in Note (1) of the Notes. We expect to incur additional expenses in connection with these efforts in future periods, which may be material.

- Amortization of acquisition-related intangibles as a percent of revenues was 1% in the second quarter of both 2021 and 2020. These expenses increased 29% to $17 million in the second quarter of 2021, from $13 million in the same period in 2020. Amortization of acquisition-related intangibles includes the amortization of customer relationships, acquired technology, trade names, and non-compete agreements recorded in connection with our business acquisitions. The increase in amortization of acquisition-related intangibles is primarily due to amortization of intangibles acquired in our April 1, 2021 acquisition of the Kantar Health business. Refer to Note (2) of the Notes for further information regarding the Kantar Health acquisition.

Non-Operating Items

- Other income (loss), net was a net loss of $2 million in the second quarter of 2021, compared to $25 million of income in the same period of 2020. The decrease is primarily attributable to the second quarter of 2020 including a $26 million unrealized gain recognized in connection with the measurement of one of our equity investments.

- Our effective tax rate was 31.7% for the second quarter of 2021, compared to 21.4% for the same period of 2020. The increase in the effective tax rate is primarily due to a $6 million valuation allowance recorded in the second quarter of 2021 against a deferred tax asset where it has become more likely than not that such deferred tax asset will not be realized. Refer to Note (8) of the Notes for further discussion regarding our effective tax rate.

Operations by Segment

We have two operating segments: Domestic and International. The Domestic segment includes revenue contributions and expenditures associated with business activity in the United States. The International segment includes revenue contributions and expenditures linked to business activity outside the United States, primarily from Australia, Canada, Europe, and the Middle East. Refer to Note (12) of the Notes for further information regarding our reportable segments.

The following table presents a summary of our operating segment information for the second quarters of 2021 and 2020:

(In thousands)	2021	% of Revenue	2020	% of Revenue	% Change
Domestic Segment					
Revenues	$ 1,267,027	100%	$ 1,168,213	100%	8%
Costs of revenue	232,225	18%	189,779	16%	22%
Operating expenses	656,369	52%	587,674	50%	12%
Total costs and expenses	888,594	70%	777,453	67%	14%
Domestic operating earnings	378,433	30%	390,760	33%	(3)%
International Segment					
Revenues	189,728	100%	162,136	100%	17%
Costs of revenue	29,100	15%	22,184	14%	31%
Operating expenses	74,708	39%	57,413	35%	30%
Total costs and expenses	103,808	55%	79,597	49%	30%
International operating earnings	85,920	45%	82,539	51%	4%
Other costs and expenses, net	(414,793)		(326,401)		27%
Consolidated operating earnings	$ 49,560		$ 146,898		(66)%

Domestic Segment

- Revenues increased 8% to $1.27 billion in the second quarter of 2021, from $1.17 billion in the same period of 2020. The following factors impacted the year-over-year change in Domestic revenues:

  - Increased implementation activity during the second quarter of 2021 within our federal business, inclusive of ongoing projects with the U.S. Department of Defense and the U.S. Department of Veterans Affairs.

  - The second quarter of 2021 includes a $21 million increase in revenues due to contributions from our April 1, 2021 acquisition of the Kantar Health business.

  - Moderate recovery from the impact of the COVID-19 pandemic, which we believe had the most significant unfavorable impact to our business operations in the second quarter of 2020, as further discussed above. The largest impact was in the areas of licensed software, technology resale, professional services, and reimbursed travel revenues.

  - The second quarter of 2021 includes a $20 million reduction in revenues due to the sale of certain of our revenue cycle outsourcing business operations to affiliates of R1 RCM Inc., on August 3, 2020.

  Refer to Note (3) of the Notes for further information regarding revenues disaggregated by our business models.

- Costs of revenue as a percent of revenues were 18% in the second quarter of 2021, compared to 16% in the same period of 2020. The higher costs of revenue as a percent of revenues was primarily driven by higher reimbursed travel revenue, which carries a 100% cost of revenue; a higher mix of technology resale revenue, which carries a high cost of revenue; and the impact of the Kantar Health business acquired on April 1, 2021.

- Operating expenses as a percent of revenues were 52% in the second quarter of 2021, compared to 50% in the same period of 2020. These expenses increased 12% to $656 million in the second quarter of 2021, from $588 million in the same period of 2020. The increase in operating expenses was primarily driven by a $68 million pre-tax charge recorded in the second quarter of 2021 in connection with the designation of certain real estate assets as held for sale. Refer to Note (1) of the Notes for further information.

International Segment

- Revenues increased 17% to $190 million in the second quarter of 2021, compared to $162 million in the same period of 2020. The following factors impacted the year-over-year change in International revenues:

    - The second quarter of 2021 includes a $24 million increase in revenues due to contributions from our April 1, 2021 acquisition of the Kantar Health business.

    - The second quarter of 2021 includes a $19 million reduction in revenues due to the sale of certain of our business operations primarily conducted in Germany and Spain to affiliates of CompuGroup Medical SE & Co. KGaA on July 1, 2020.

    - The remaining difference is attributable to 2021 revenue growth across the majority of our remaining International Segment operations.

  Refer to Note (3) of the Notes for further information regarding revenues disaggregated by our business models.

- Costs of revenue as a percent of revenues were 15% in the second quarter of 2021, compared to 14% in the same period of 2020. The higher costs of revenue as a percent of revenues was primarily driven by the impact of the Kantar Health business acquired on April 1, 2021.

- Operating expenses as a percent of revenues were 39% in the second quarter of 2021, compared to 35% in the same period of 2020. These expenses increased 30% to $75 million in the second quarter of 2021, from $57 million in the same period of 2020. The increase in operating expenses is primarily due to the April 1, 2021 acquisition of the Kantar Health business.

Other Costs and Expenses, Net

Operating costs and expenses not attributed to an operating segment include expenses such as software development, general and administrative expenses, share-based compensation expense, certain amortization and depreciation, certain organizational restructuring and other expense. These expenses increased 27% to $415 million in the second quarter of 2021, from $326 million in the same period of 2020. The increase is primarily due to increased employee separation costs recognized in connection with our operational improvement initiatives, and a pre-tax charge of $48 million to reduce the carrying amount of certain capitalized software development costs to estimated net realizable value, both of which are further discussed in Note (1) of the Notes.

Six Months Ended June 30, 2021 Compared to Six Months Ended June 30, 2020

The following table presents a summary of our operating information for the first six months of 2021 and 2020:

(In thousands)	2021	*% of Revenue*	2020	*% of Revenue*	% Change
Revenues	$ 2,844,533	100 %	$ 2,742,090	100 %	4 %
Costs of revenue	491,981	17 %	466,379	17 %	5 %
Margin	2,352,552	83 %	2,275,711	83 %	3 %
Operating expenses					
Sales and client service	1,353,253	48 %	1,281,736	47 %	6 %
Software development	433,927	15 %	364,275	13 %	19 %
General and administrative	268,672	9 %	274,184	10 %	(2)%
Amortization of acquisition-related intangibles	29,082	1 %	30,242	1 %	(4)%
Total operating expenses	2,084,934	73 %	1,950,437	71 %	7 %
Total costs and expenses	2,576,915	91 %	2,416,816	88 %	7 %
Operating earnings	267,618	9 %	325,274	12 %	(18)%
Other income (loss), net	(472)		30,227		
Income taxes	(62,187)		(73,594)		
Net earnings	$ 204,959		$ 281,907		(27)%

Revenues & Backlog

Revenues increased 4% to $2.84 billion in the first six months of 2021, as compared to $2.74 billion in the same period of 2020. The following factors impacted the year-over-year change in revenues:

- Increased implementation activity during the first six months of 2021 within our federal business, inclusive of ongoing projects with the U.S. Department of Defense and the U.S. Department of Veterans Affairs. In the first six months of 2021, 20% of our total revenues were attributable to our relationships (as the prime contractor or a subcontractor) with U.S. government agencies, compared to 17% in the same period of 2020.

- The first six months of 2021 includes a $45 million increase in revenues due to contributions from our April 1, 2021 acquisition of the Kantar Health business. Refer to Note (2) of the Notes for further information regarding the Kantar Health acquisition.

- The first six months of 2021 includes a $43 million reduction in revenues due to the sale of certain of our revenue cycle outsourcing business operations to affiliates of R1 RCM Inc., on August 3, 2020.

- The first six months of 2021 includes a $40 million reduction in revenues due to the sale of certain of our business operations primarily conducted in Germany and Spain to affiliates of CompuGroup Medical SE & Co. KGaA on July 1, 2020.

Refer to Note (3) of the Notes for further information regarding revenues disaggregated by our business models.

Costs of Revenue

Costs of revenue as a percent of revenues were 17% in the first six months of both 2021 and 2020.

Operating Expenses

Total operating expenses increased 7% to $2.08 billion in the first six months of 2021, compared to $1.95 billion in the same period of 2020.

- Sales and client service expenses as a percent of revenues were 48% in the first six months of 2021, compared to 47% in the same period of 2020. These expenses increased 6% to $1.35 billion in the first six months of 2021, from $1.28 billion in the same period of 2020. The increase in sales and client service expenses was primarily driven by a $68 million pre-tax charge recorded in the first six months of 2021 in connection with the designation of certain real estate assets as held for sale. Refer to Note (1) of the Notes for further information.

- Software development expenses as a percent of revenues were 15% in the first six months of 2021, compared to 13% in the same period of 2020. Expenditures for software development include ongoing development and enhancement of the *Cerner Millennium* and *HealtheIntent* platforms, as well as other key initiatives such as platform modernization, with a focus on development of a software as a service platform. A summary of our total software development expense in the first six months of 2021 and 2020 is as follows:

	Six Months Ended	
(In thousands)	**2021**	**2020**
Software development costs	$ 423,285	$ 393,460
Capitalized software costs	(162,461)	(148,354)
Capitalized costs related to share-based payments	(4,647)	(3,039)
Amortization of capitalized software costs	130,097	122,208
Net realizable value charge (see Note (1) of the Notes)	47,653	—
Total software development expense	$ 433,927	$ 364,275

- General and administrative expenses as a percent of revenues were 9% in the first six months of 2021, compared to 10% in the same period of 2020. These expenses decreased 2% to $269 million in the first six months of 2021, from $274 million in the same period of 2020. The slight decrease in general and administrative expenses was primarily driven by lower depreciation expenses associated with property and equipment.

- Amortization of acquisition-related intangibles as a percent of revenues was 1% in the first six months of both 2021 and 2020. These expenses were relativity flat at $29 million in the first six months of 2021, compared to $30 million in the same period in 2020.

Non-Operating Items

- Other income (loss), net was a net loss of less than $1 million in the first six months of 2021, compared to $30 million of income in the same period of 2020. The first six months of 2020 includes a $26 million unrealized gain recognized in connection with the measurement of one of our equity investments. The remaining difference is primarily attributable to increased interest expense in the first six months of 2021 from the $300 million of Series 2020-A Notes we issued in March 2020 and the $500 million of Series 2021 Senior Notes we issued in March 2021.

- Our effective tax rate was 23.3% for the first six months of 2021, compared to 20.7% for the same period of 2020. A $6 million valuation allowance was recorded in the first six months of 2021 against a deferred tax asset where it became more likely than not that such deferred tax asset will not be realized, while a valuation allowance of $3 million was recorded during first six months of 2020. The remainder of the increase in the effective tax rate is primarily related to unfavorability of permanent book-tax differences for share based compensation in 2021 compared to 2020. Refer to Note (8) of the Notes for further discussion regarding our effective tax rate.

Operations by Segment

The following table presents a summary of our operating segment information for the first six months of 2021 and 2020:

(In thousands)	2021	% of Revenue	2020	% of Revenue	% Change
Domestic Segment					
Revenues	$ 2,489,019	100%	$ 2,414,628	100%	3%
Costs of revenue	437,919	18%	418,346	17%	5%
Operating expenses	1,216,931	49%	1,157,768	48%	5%
Total costs and expenses	1,654,850	66%	1,576,114	65%	5%
Domestic operating earnings	834,169	34%	838,514	35%	(1)%
International Segment					
Revenues	355,514	100%	327,462	100%	9%
Costs of revenue	54,062	15%	48,033	15%	13%
Operating expenses	136,322	38%	123,968	38%	10%
Total costs and expenses	190,384	54%	172,001	53%	11%
International operating earnings	165,130	46%	155,461	47%	6%
Other costs and expenses, net	(731,681)		(668,701)		9%
Consolidated operating earnings	$ 267,618		$ 325,274		(18)%

Domestic Segment

- Revenues increased 3% to $2.49 billion in the first six months of 2021, from $2.41 billion in the same period of 2020. The following factors impacted the year-over-year change in Domestic revenues:

    - Increased implementation activity during the first six months of 2021 within our federal business, inclusive of ongoing projects with the U.S. Department of Defense and the U.S. Department of Veterans Affairs.

    - The first six months of 2021 includes a $21 million increase in revenues due to contributions from our April 1, 2021 acquisition of the Kantar Health business.

    - The first six months of 2021 includes a $43 million reduction in revenues due to the sale of certain of our revenue cycle outsourcing business operations to affiliates of R1 RCM Inc., on August 3, 2020.

  Refer to Note (3) of the Notes for further information regarding revenues disaggregated by our business models.

- Costs of revenue as a percent of revenues were 18% in the first six months of 2021, compared to 17% in the same period of 2020. The higher costs of revenue as a percent of revenues was primarily driven by a higher mix of technology resale revenue, which carries a high cost of revenue; along with the impact of the Kantar Health business acquired on April 1, 2021.

- Operating expenses as a percent of revenues were 49% in the first six months of 2021, compared to 48% in the same period of 2020. These expenses increased 5% to $1.22 billion in the first six months of 2021, from $1.16 billion in the same period of 2020. The increase in operating expenses was primarily driven by a $68 million pre-tax charge recorded in the first six months of 2021 in connection with the designation of certain real estate assets as held for sale. Refer to Note (1) of the Notes for further information.

International Segment

- Revenues increased 9% to $356 million in the first six months of 2021, from $327 million in the same period of 2020. The following factors impacted the year-over-year change in International revenues:

    - The first six months of 2021 includes a $24 million increase in revenues due to contributions from our April 1, 2021 acquisition of the Kantar Health business.

    - The first six months of 2021 includes a $40 million reduction in revenues due to the sale of certain of our business operations primarily conducted in Germany and Spain to affiliates of CompuGroup Medical SE & Co. KGaA on July 1, 2020.

    - The remaining difference is attributable to 2021 revenue growth across the majority of our remaining International Segment operations.

  Refer to Note (3) of the Notes for further information regarding revenues disaggregated by our business models.

- Costs of revenue as a percent of revenues were 15% in the first six months of both 2021 and 2020.

- Operating expenses as a percent of revenues were 38% in the first six months of both 2021 and 2020. These expenses increased 10% to $136 million in the first six months of 2021, from $124 million in the same period of 2020. The increase in operating expenses is primarily due to the April 1, 2021 acquisition of the Kantar Health business.

Other Costs and Expenses, Net

These expenses increased 9% to $732 million in the first six months of 2021, from $669 million in the same period of 2020. The increase is primarily due to a pre-tax charge of $48 million recorded in the first six months of 2021 to reduce the carrying amount of certain capitalized software development costs to estimated net realizable value, as further discussed in Note (1) of the Notes.

Liquidity and Capital Resources

Our liquidity is influenced by many factors, including the amount and timing of our revenues, our cash collections from our clients and the amount we invest in software development, acquisitions, collaborations, capital expenditures, and our share repurchase and dividend programs.

Our principal sources of liquidity are our cash, cash equivalents (which primarily consist of money market funds, time deposits and commercial paper with original maturities of less than 90 days), short-term investments, borrowings under our Credit Agreement and other sources of debt financing. At June 30, 2021, we had cash and cash equivalents of $246 million and short-term investments of $638 million, as compared to cash and cash equivalents of $616 million and short-term investments of $442 million at December 31, 2020.

We have entered into a Credit Agreement with a syndicate of lenders that provides for an unsecured $1.00 billion revolving credit loan facility, along with a letter of credit facility up to $100 million (which is a sub-facility of the $1.00 billion revolving credit loan facility). We have the ability to increase the maximum capacity to $1.20 billion at any time during the Credit Agreement's term, subject to lender participation and the satisfaction of specified conditions. The Credit Agreement expires in May 2024. As of June 30, 2021, we had outstanding revolving credit loans and letters of credit of $600 million and $31 million, respectively; which reduced our available borrowing capacity to $369 million under the Credit Agreement.

We have also entered into note purchase agreements pursuant to which we may issue and sell unsecured senior promissory notes to those purchasers electing to purchase. See Note (6) of the Notes for further information.

We believe that our present cash position, together with cash generated from operations, short-term investments and, as appropriate, remaining availability under our Credit Agreement and other sources of debt financing, will be sufficient to meet anticipated cash requirements for the next 12 months.

The following table summarizes our cash flows in the first six months of 2021 and 2020:

	Six Months Ended	
(In thousands)	**2021**	**2020**
Cash flows from operating activities	$ 819,569	$ 542,096
Cash flows from investing activities	(910,819)	(385,046)
Cash flows from financing activities	(275,378)	(322,569)
Effect of exchange rate changes on cash	(2,583)	(6,429)
Total change in cash and cash equivalents	(369,211)	(171,948)
Cash and cash equivalents at beginning of period	615,615	441,843
Cash and cash equivalents at end of period	$ 246,404	$ 269,895
Free cash flow (non-GAAP)	$ 453,180	$ 224,407

Cash from Operating Activities

	Six Months Ended	
(In thousands)	**2021**	**2020**
Cash collections from clients	$ 2,903,150	$ 2,658,956
Cash paid to employees and suppliers and other	(2,010,033)	(2,091,598)
Cash paid for interest	(20,190)	(16,572)
Cash paid for taxes, net of refunds	(53,358)	(8,690)
Total cash from operations	$ 819,569	$ 542,096

Cash flows from operations increased $277 million in the first six months of 2021 when compared to the same period of 2020, due primarily to increased collections of client receivables. Days sales outstanding was 77 days in the second quarter of 2021, compared to 77 days for the first quarter of 2021 and 81 days for the second quarter of 2020.

Cash from Investing Activities

	Six Months Ended	
(In thousands)	**2021**	**2020**
Capital purchases	$ (199,281)	$ (166,296)
Capitalized software development costs	(167,108)	(151,393)
Purchases of investments, net of sales and maturities	(178,530)	(10,935)
Purchases of other intangibles	(16,031)	(20,656)
Acquisition of businesses, net of cash acquired	(349,869)	(35,766)
Total cash flows from investing activities	$ (910,819)	$ (385,046)

Cash flows from investing activities consist primarily of capital spending, investment, acquisition, and divestiture activities.

Our capital spending in the first six months of 2021 was driven by capitalized equipment purchases primarily to support growth in our managed services business and capitalized spending to support our ongoing software development initiatives. Capital purchases for the remainder of 2021 are expected to be below 2020 levels, primarily driven by reduced purchases to support our facilities requirements, reflective of the completion of construction on the most recent phases of our Innovations Campus in the third quarter of 2020.

Short-term investment activity historically consists of the investment of cash generated by our business in excess of what is necessary to fund operations. Both the 2021 and 2020 activity is impacted by excess cash primarily being used to execute on our capital allocation strategy, including the share repurchases and cash dividends discussed below.

On April 1, 2021, we paid $364 million of purchase price consideration in connection with our acquisition of Kantar Health, as further discussed in Note (2) of the Notes. We expect to continue seeking and completing strategic business acquisitions, investments, and relationships that are complementary to our business.

Cash from Financing Activities

	Six Months Ended	
(In thousands)	**2021**	**2020**
Long-term debt issuance	$ 500,000	$ 300,000
Cash from option exercises (net of taxes paid in connection with shares surrendered by associates)	118,554	142,691
Treasury stock purchases	(750,000)	(650,000)
Dividends paid	(135,260)	(111,101)
Other	(8,672)	(4,159)
Total cash flows from financing activities	$ (275,378)	$ (322,569)

In March 2021, we issued $500 million aggregate principal amount of Series 2021 Senior Notes. In March 2020, we issued $300 million aggregate principal amount of Series 2020-A notes. Refer to Note (6) of the Notes for further information regarding these, as well as our other debt obligations.

We may incur additional indebtedness in the next 12 months, which will primarily be dependent on cash flows from operations, market interest rates, and the timing of business acquisition and capital allocation activity. The proceeds from such indebtedness would be deployed in accordance with our capital allocation strategy, which may include share repurchases and dividend payments (as discussed further below), as well as for general corporate purposes, including acquisitions and investments. The terms and availability of any such debt financing may be impacted by economic and financial market conditions, as well as our financial condition and results of operations at the time we seek such financing, and there can be no assurances that we would be able to obtain such financing on terms that will be acceptable or advantageous to us.

Cash inflows from stock option exercises are dependent on a number of factors, including the price of our common stock, grant activity under our stock option and equity plans, and overall market volatility. We expect net cash inflows from stock option exercises to continue throughout 2021 based on the number of exercisable options as of June 30, 2021 and our current stock price.

During the first six months of 2021 and 2020, we repurchased 10.1 million shares of our common stock for total consideration of $750 million and 9.2 million shares of our common stock for total consideration of $650 million, respectively. As of June 30, 2021, an aggregate of $3.93 billion remained available for repurchase under our share repurchase programs. We will continue to repurchase shares under our share repurchase programs, but the amount and timing of such repurchases will be dependent on a number of factors, including the price of our common stock and other cash flow needs. There is no assurance that we will repurchase up to the full amount remaining under our programs. Refer to Note (10) of the Notes for further information regarding our share repurchase programs.

During the first six months of both 2021 and 2020, we declared and paid quarterly cash dividends. Subject to declaration by our Board of Directors, we expect to continue paying quarterly cash dividends as a part of our current capital allocation strategy. Future dividends will be subject to the determination, declaration and discretion of our Board of Directors and compliance with covenants under our outstanding debt agreements. Refer to Note (10) of the Notes for further information regarding our cash dividend activity.

The source of funds for such repurchases and dividends may include cash generated from operations, liquidation of investment holdings and other dispositions of assets, and the incurrence of indebtedness.

Free Cash Flow (Non-GAAP)

	Three Months Ended		Six Months Ended	
(In thousands)	2021	2020	2021	2020
Cash flows from operating activities (GAAP)	$ 369,135	$ 258,590	$ 819,569	$ 542,096
Capital purchases	(123,356)	(117,048)	(199,281)	(166,296)
Capitalized software development costs	(83,558)	(77,538)	(167,108)	(151,393)
Free cash flow (non-GAAP)	$ 162,221	$ 64,004	$ 453,180	$ 224,407

Free cash flow increased $229 million in the first six months of 2021 compared to the same period in 2020, primarily due to increased cash from operations, partially offset by an increase in capital spending. Free cash flow is a non-GAAP financial measure used by management, along with GAAP results, to analyze our earnings quality and overall cash generation of the business, and for management compensation purposes. We define free cash flow as cash flows from operating activities reduced by capital purchases and capitalized software development costs. The table above sets forth a reconciliation of free cash flow to cash flows from operating activities, which we believe is the GAAP financial measure most directly comparable to free cash flow. The presentation of free cash flow is not meant to be considered in isolation, nor as a substitute for, or superior to, GAAP results, and investors should be aware that non-GAAP measures have inherent limitations and should be read only in conjunction with our consolidated financial statements prepared in accordance with GAAP. Free cash flow may also be different from similar non-GAAP financial measures used by other companies and may not be comparable to similarly titled captions of other companies due to potential inconsistencies in the method of calculation. We believe free cash flow is important to enable investors to better understand and evaluate our ongoing operating results and allows for greater transparency in the review and understanding of our overall financial, operational and economic performance, because free cash flow takes into account certain capital expenditures necessary to operate our business.

Forward-Looking Statements

All statements contained in this quarterly report on Form 10-Q that do not directly and exclusively relate to historical facts constitute "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities and Exchange Act of 1934, as amended (the "Exchange Act"). Forward-looking statements are based on the current beliefs, expectations and assumptions of Cerner's management with respect to future events and are subject to a number of significant risks and uncertainties. It is important to note that Cerner's performance, and actual results, financial condition or business could differ materially from those expressed in such forward-looking statements. The words "will," "believe," "plans," "may," "expect," "expected," "anticipated," "strategy," "opportunities," "future," "estimated," "objectives", or the negative of these words, variations thereof or similar expressions are intended to identify such forward-looking statements. For example, our forward-looking statements include statements regarding our expectations, opportunities or plans for growth; our operational improvement initiatives and the results expected to be realized from those initiatives; our expectations with respect to realizing revenue from backlog; our anticipated expenses, cash requirements and sources of liquidity; the expected impact of the COVID-19 pandemic on our results of operations, financial condition, business and operations; the expected revenue contributions of acquired businesses; and our capital allocation strategies and plans. These statements involve a number of risks, uncertainties and other factors that could cause or contribute to actual results differing materially, including without limitation: the extent to which the COVID-19 pandemic and measures taken in response thereto could adversely affect our financial condition, future bookings and results of operations; the possibility of interruption at our data centers or client support facilities, or those of third parties with whom we have contracted (such as public cloud providers), that could expose us to significant costs and reputational harm; the possibility of increased expenses, exposure to legal claims and regulatory actions and reputational harm associated with a cyberattack or other breach in our IT security or the IT security of third parties on which we rely; potential claims for system errors and warranties or significant costs and reputational harm related to product and service-related liabilities; our proprietary technology may be subject to claims for infringement or misappropriation of intellectual property rights of others, or may be infringed or misappropriated by others, or subject to claims related to open source licenses; material adverse resolution of legal proceedings or other claims or reputational harm stemming from negative publicity related to such claims or legal proceedings; risks associated with our global operations, including without limitation greater difficulty in collecting accounts receivable; significant competition and our ability to anticipate or respond quickly to market changes, changing technologies and evolving pricing and deployment methods and to bring competitive new solutions, devices, features and services to market in a timely fashion; risks inherent with business acquisitions, strategic investments, collaborations and the failure to achieve projected synergies, or divestitures; managing growth in the new markets in which we offer solutions, healthcare devices or services; long sales cycles for our solutions and services; risks related to our dependence on strategic relationships and third party suppliers, including any impact to such supplier's business resulting from the COVID-19 pandemic; risks associated with the loss or recruitment and retention of key personnel, the failure to successfully develop and execute succession planning to assure transitions of key associates and their knowledge, relationships and expertise and uncertainties as to how quickly we are able to finalize our CEO succession plans; inability to achieve expected operating efficiencies and sustain or improve operating expense reductions or business disruptions or adverse tax consequences associated with restructuring, realignment and costs reduction activities; changing political, economic and regulatory influences, which could impact the purchasing practices and operations of our clients and increase costs to deliver compliant solutions and services; non-compliance with laws, regulations or certain industry initiatives or failure to deliver solutions or services that enable our clients to comply with laws or regulations applicable to their businesses; risks inherent in contracting with government clients, including without limitation, complying with strict compliance and disclosure obligations, navigating complex procurement rules and processes, and defending against bid protests; volatility and disruption resulting from global economic or market conditions, including the impact from the COVID-19 pandemic; risks associated with our outstanding and future indebtedness, such as compliance with restrictive covenants, which may limit our flexibility to operate our business; risk that our capital allocation strategy will not be fully implemented or enhance long-term shareholder value; changes in tax laws, regulations or guidance that could adversely affect our tax position and/or challenges to our tax positions in the U.S. and non-U.S. countries; the potential for losses resulting from asset impairment charges; potential variations in our sales forecasts compared to actual sales; risks that our revenue growth may be lower than anticipated and/or that the mix of revenue shifts to low margin revenue; variations in our quarterly operating results; volatility in the trading price of our common stock and the timing and volume of market activity; risks associated with fluctuations in foreign currency exchange rates; and our directors' authority to issue preferred stock and the anti-takeover provisions in our corporate governance documents. Additional discussion of these and other risks, uncertainties and factors affecting Cerner's business is contained in our filings with the Securities and Exchange Commission, including those under the caption "Risk Factors" in our latest annual report on Form 10-K, or in materials incorporated herein or therein by reference. Forward-looking statements are not guarantees of future performance or results. The reader should not place undue reliance on forward-looking statements since the statements speak only as of the date that they are made. Except as required by law, we undertake no obligation to update or revise forward-looking statements to reflect changed assumptions, the occurrence of unanticipated events or changes in our business, results of operations or financial condition over time.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

No material changes.

Item 4. Controls and Procedures

a) Evaluation of Disclosure Controls and Procedures.

We carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), of the effectiveness of our disclosure controls and procedures (as defined in the Exchange Act Rules 13a-15(e) and 15d-15(e)) as of the end of the period covered by this quarterly report on Form 10-Q (the "Evaluation Date"). Based upon that evaluation, our CEO and CFO have concluded that, as of the Evaluation Date, our disclosure controls and procedures were designed, and were effective, to provide reasonable assurance that the information required to be disclosed by us in reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time period specified in SEC rules and forms and is accumulated and communicated to our management, including our CEO and CFO, to allow timely decisions regarding required disclosure.

b) Changes in Internal Control over Financial Reporting.

There were no changes in our internal controls over financial reporting during the fiscal quarter ended June 30, 2021, that have materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting. During the fiscal quarter ended June 30, 2021, we completed the acquisition of Kantar Health. As permitted by Securities and Exchange Commission staff interpretative guidance that an assessment of a recently acquired business may be omitted from the scope of an assessment for a period not to exceed one year from the date of acquisition, the scope of our assessment of our internal controls over financial reporting at June 30, 2021 does not include Kantar Health.

c) Limitations on Controls.

Our management can provide no assurance that our disclosure controls and procedures or our internal control over financial reporting can prevent all errors and all fraud under all circumstances. 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. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. 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 the Company have been or will be detected. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Part II. Other Information

Item 1. Legal Proceedings

From time to time, we are involved in litigation which is incidental to our business. There have been no material developments to the legal proceedings previously reported in our 2020 annual report on Form 10-K. In our opinion, no litigation to which we are currently a party is likely to have a material adverse effect on our consolidated financial condition, results of operations, or cash flows.

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

(c) Issuer Purchases of Equity Securities

The table below provides information with respect to Common Stock purchases by the Company during the second fiscal quarter of 2021.

Period	Total Number of Shares Purchased (a)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (b)	Approximate Dollar Value of Shares That May Yet Be Purchased Under the Plans or Programs (b)
April 1, 2021 - April 30, 2021	1,365,000	$ 74.30	1,365,000	$ 4,225,494,010
May 1, 2021 - May 31, 2021	2,123,675	77.32	2,123,675	4,061,290,425
June 1, 2021 - June 30, 2021	1,693,842	79.41	1,690,841	3,927,014,404
Total	5,182,517	$ 77.21	5,179,516	

(a) Of the 5,182,517 shares of common stock, par value $0.01 per share, presented in the table above, 3,001 shares were originally granted to employees as restricted stock pursuant to our 2011 Omnibus Equity Incentive Plan (the "Omnibus Plan"). The Omnibus Plan allows for the withholding of shares to satisfy tax obligations due upon the vesting of restricted stock. Pursuant to the Omnibus Plan, the 3,001 shares reflected above were relinquished by employees in exchange for our agreement to pay U.S. federal and state withholding obligations resulting from the vesting of the Company's restricted stock.

(b) Under our share repurchase program, which was initially approved by our Board of Directors on May 23, 2017 (and announced May 25, 2017) and most recently amended on December 12, 2019 (as announced on December 13, 2019), (the "2017 Share Repurchase Program") the Company is authorized to repurchase up to $3.70 billion of shares of our common stock, excluding transaction costs. The repurchases are to be effectuated in the open market, by block purchase, in privately negotiated transactions, or through other transactions managed by broker-dealers, or any combination thereof. No time limit was set for the completion of the 2017 Share Repurchase Program.
On April 23, 2021, our Board of Directors approved (and announced on May 5, 2021) a new share repurchase program (the "2021 Share Repurchase Program"), which authorizes the Company to repurchase up to $3.75 billion in the aggregate of shares of our common stock, excluding transaction costs. The 2021 Share Repurchase Program is incremental to our 2017 Share Repurchase Program. The repurchases are to be effectuated in the open market, by block purchase, in privately negotiated transactions, or through other transactions managed by broker-dealers, or any combination thereof. The 2021 Share Repurchase Program will expire on December 31, 2023.

During the six months ended June 30, 2021, we repurchased 10.1 million shares for total consideration of $750 million under our share repurchase programs pursuant to Rule 10b5-1 plans. As of June 30, 2021, an aggregate of $3.93 billion remained available for repurchase under the programs.

Item 6. Exhibits

(a)	Exhibits
10.1*	Letter Agreement and Transition Agreement with Brent Shafer
31.1	Certification of Brent Shafer pursuant to Section 302 of Sarbanes-Oxley Act of 2002
31.2	Certification of Mark J. Erceg pursuant to Section 302 of Sarbanes-Oxley Act of 2002
32.1	Certification of Brent Shafer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of Sarbanes-Oxley Act of 2002
32.2	Certification of Mark J. Erceg pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of Sarbanes-Oxley Act of 2002
101.INS	Inline XBRL Instance Document - the instance document does not appear in the interactive data file because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Labels Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
104	Cover Page Interactive Data File - formatted in Inline XBRL and contained in Exhibit 101.

*Indicates a management contract or compensatory plan or arrangement.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

CERNER CORPORATION
Registrant

Date: July 30, 2021

By: /s/ Mark J. Erceg
Mark J. Erceg
Executive Vice President and Chief Financial Officer (duly authorized officer and principal financial officer)

April 30, 2021

D. Brent Shafer
Chairman of the Board and Chief Executive Officer
2800 Rock Creek Parkway
North Kansas City, Missouri 64117

Re: Transition to Senior Advisor and Departure from Cerner Corporation ("Cerner")

Dear Brent:

In connection with Cerner's ongoing Chief Executive Officer ("CEO") succession planning process, it is acknowledged that you may consider retiring in the next few years. In order to provide for a smooth and orderly CEO succession, the Cerner Board of Directors (the "Board") desires to commence a search for your successor (the "Successor CEO") immediately, to retain your services as CEO and Chairman of the Board until the earlier of the date the Successor CEO starts at Cerner and December 31, 2021 (the "Successor CEO Start Date"), and to retain you to provide transition services as Senior Advisor from the Successor CEO Start Date until the later of (i) May 31, 2022 and (ii) the one year anniversary of the Successor CEO Start Date (your "Departure Date").

This letter agreement outlines the terms of the agreement between Cerner and you regarding your transition to a Senior Advisor and departure from Cerner.

- **Service as CEO and Chairman.** From now until the Successor CEO Start Date, you will continue to serve as the Chairman of the Board and CEO for Cerner. You agree to resign from all positions you hold as an officer and director (including Chairman) of Cerner and its subsidiaries, affiliates, joint ventures or other related entities effective as of the Successor CEO Start Date. No further action or documentation is required to give effect to your resignations, although you agree to execute any further documentation that Cerner may reasonably request to evidence them.

- **Transition to Senior Advisor.** Beginning on the Successor CEO Start Date and until your Departure Date, you agree to provide ongoing transition services to Cerner as a Senior Advisor, a non-officer employee role, including transitioning your duties and responsibilities to the Successor CEO and performing such other services as requested and directed by the Board or the Successor CEO (the "Services"). While providing the Services, you acknowledge and agree that you will have no authority to bind Cerner. Cerner agrees to reimburse you for any travel or other expenses incurred by you in providing any of the Services, subject to approval of such expenses by the Successor CEO or Cerner's Chief Financial Officer.

- **Compensation While Serving as CEO.** In consideration for your continuing service as CEO until the Successor CEO Start Date, and satisfactorily performing your work through that date:

    - Salary. Through and ending on the Successor CEO Start Date, Cerner will continue to pay you at a rate equal to your annual current base salary ($850,000), less appropriate payroll deductions, on Cerner's regular paydays.

    - Airplane Use. You will remain eligible to continue your personal use of Cerner's corporate aircraft up to a value of $100,000, as previously approved by the Board's Compensation Committee for 2021, through the Successor CEO Start Date. Within 30 days following the Successor CEO Start Date, Cerner agrees to pay you a lump sum cash payment equal to (a) $100,000, less (b) the value of your personal use of Cerner's corporate aircraft in 2021 prior to the Successor CEO Start Date, calculated consistent with past practice.

    - Short-term Incentive. You will remain eligible to participate in the Cerner Corporation 2018 Performance Compensation Plan (as amended, the "CPP") through December 31, 2021 (regardless of whether the Successor CEO Start Date occurs prior to such date). Calculations and payments under the CPP shall be governed by the CPP and your 2021 award granted under the CPP will be based on the actual CPP metrics achieved or not achieved. Any amounts earned will be paid to you in accordance with Cerner's regular CPP payment schedule. Your annual incentive target bonus level for 2021 is $1,275,000.

    - Long-term Incentive. Your annual long-term incentive target award amount for 2021 will be $2,500,000 and will be granted in accordance with the Cerner Corporation 2011 Omnibus Equity Incentive Plan (as amended, the "LTIP") and subject to the terms and conditions of the LTIP and the award agreement governing your 2021 grant. Your 2021 LTIP award will be in the form of time-based restricted stock units ("RSU") and will vest on the first anniversary of the award's grant date (subject to early vesting in accordance with the terms of this letter agreement).

    - Benefits. You will continue to be entitled to eligible benefits through the Successor CEO Start Date, consistent with Cerner's benefit programs.

- **Compensation starting on the Successor CEO Start Date through your Departure Date.** In consideration for, and subject to and conditioned upon, your execution and non-revocation of the attached Transition Agreement (the "Transition Agreement") on the Successor CEO Start Date, and your continuing service as Senior Advisor until your Departure Date:

    - Cash. From the Successor CEO Start Date through and ending on your Departure Date, Cerner will pay you at a rate equal to your annual current base salary

($850,000), less appropriate payroll deductions on Cerner’s regular paydays. You will not be eligible for a 2022 merit increase.

- Long-term Incentive. On the Effective Date (as defined therein) of the Transition Agreement, Cerner will: (i) fully vest each award of Cerner common stock (each a “Cerner Equity Award”) that is an outstanding unvested stock option, which would have vested by its terms on or before your Departure Date (and you shall have until the earlier of one year from your Departure Date and the balance of the original option term to exercise such option); and (ii) fully vest each Cerner Equity Award that is an outstanding unvested RSU that would have vested by its terms on or before your Departure Date. For purposes of the preceding sentence, your 2021 long term incentive award in the amount of $2,500,000 shall be treated as outstanding on the Effective Date regardless of the date of grant, and if granted after the Effective Date, shall be fully vested on the date of the grant. All other Cerner Equity Awards you hold on the Successor CEO Start Date (which, at such time, will all be unvested performance-based vesting Cerner Equity Awards) will be eligible to become vested in accordance with the applicable award agreements and the LTIP. If your employment, either as CEO or Senior Adviser, is terminated prior to the Departure Date by reason of your death or Disability (as the term Disability is defined in your Employment Agreement, as defined below), all Cerner Equity Awards that would have vested on or before your Departure Date will vest on the date of death or Disability, as the case may be. In the case of termination by reason of your death or Disability, any performance-based restricted stock units that would have vested, notwithstanding the performance condition, on or before your Departure Date, will vest assuming a 100% of target level of performance.

- Benefits. You will continue to be entitled to eligible benefits as Senior Advisor through your Departure Date, consistent with Cerner’s then current benefit programs.

- **COBRA Coverage.** Cerner will pay you in lump sum, within 60 days following your Departure Date, the difference between the monthly COBRA continuation premium for you and your partner, spouse or dependents under Cerner's health, vision and dental plans in effect as of your Departure Date and the monthly amount you were paying for such coverage, less applicable deductions required by law multiplied by 24.

- **Communication Plan.** Cerner and you will work together to create a mutually agreeable communication plan related to your transition and departure.

- **Separation from Service.** Unless Cerner and you otherwise agree in writing, your employment will end at the close of business on your Departure Date, at which point you will cease to be an employee of Cerner or any of its subsidiaries, affiliates, joint ventures or other related entities. Each party agrees to execute the Transition Agreement on the Successor CEO Start Date or such earlier date mutually agreed between the parties. No further action or documentation is required to give effect to your termination of employment, although you agree to execute any further documentation that Cerner may reasonably request to evidence it. You agree that neither your transition to a Senior Advisor nor your departure constitutes a termination ("Constructive Termination" or otherwise) under your Cerner Executive Employment Agreement dated February 1, 2018, as amended by that certain letter agreement dated February 19, 2021 (as amended, your "Employment Agreement") or any other Cerner severance plan and waive any claim to separation payments under Sections 3.A and 3.B of your Employment Agreement or any other agreement or Cerner plan. This letter agreement is not a guarantee of employment.

- **Termination without Cause.** Notwithstanding the foregoing, if your employment (either as CEO or Senior Adviser) during the term covered by this letter is terminated without Cause by Cerner prior to the Departure Date, your waiver, as set forth in the prior paragraph, of any claim to separation payments under Sections 3.A and 3.B of your Employment Agreement is null and void and the terms of Sections 3.A or 3.B of your Employment Agreement shall govern your separation payments.

- **Cerner Property.** With the exception of your laptop, iPad and cell phone, you will return all other Cerner-issued equipment by no later than June 14, 2022. At the end of your employment, you will work with Cerner to ensure that corporate data is removed from your laptop, iPad and cell phone and preserved by Cerner, if needed.

- **Tax Matters.** Tax will be withheld by Cerner as appropriate under applicable tax requirements for any payments or deliveries under this letter agreement. To the extent any taxable expense reimbursement or in-kind benefits under this letter agreement is subject to Section 409A of the U.S. Internal Revenue Code of 1986 ("Section 409A"), (a) the amount thereof eligible in one taxable year shall not affect the amount eligible for any other taxable year, (b) in no event shall any expenses be reimbursed after the last day of the taxable year following the taxable year in which you incurred such expenses, and (c) in no event shall any right to reimbursement or receipt of in-kind benefits be subject to liquidation or exchange for another benefit. Each payment under this letter agreement will be treated as a separate payment for purposes of Section 409A. In the event that any amounts payable to you in your capacity as Senior Adviser are considered to constitute deferred compensation subject to Section 409A, then each separate installment of such payments shall be considered a separate payment for purposes of Section 409A, and any such payments that are not exempt from Section 409A and that would otherwise have been payable prior to the first day of the seventh month following the month that includes your separation from service shall be accumulated and paid on the earlier of such date or the date of your death.

- **Forfeiture and Reimbursement.** If you are found by a court or arbitrator to have committed a material breach of any material provision of this letter agreement or your Employment Agreement, (a) Cerner's obligation to deliver payments and benefits to you under this letter agreement will cease immediately, (b) you will be obligated to reimburse Cerner for all payments already made to you under this letter agreement prior to the date of the breach, and (c) any outstanding Cerner equity award held by you will immediately be forfeited notwithstanding any contrary term or condition in any underlying grant instrument. Cerner will also be entitled to all other legal and equitable remedies available to it by law.

- **Entire Agreement**. This letter agreement, your Employment Agreement and your Cerner Mutual Arbitration Agreement with Cerner dated January 10, 2018, constitutes the full, complete and entire agreement of the parties related to your transition to and Services as Senior Advisor and your departure. The benefits and payments under this letter agreement supersede and replace any benefits or payments you might otherwise be eligible to receive under your Employment Agreement, the Cerner Enhanced Severance Pay Plan, any successor thereto, or any other broad-based Cerner severance plan or policy which otherwise would be applicable to you. However, the parties agree that your Employment Agreement (excluding any right you have to any severance payment or severance benefit thereunder), otherwise remains in full force and effect. In the event of any inconsistency between this letter agreement and any other plan, program, practice or agreement in which you are a participant or a party, the terms described in this letter agreement will control unless such other plan, program, practice or agreement specifically identifies the terms in this letter agreement, and the specific provision hereof, as not so controlling.

- **Miscellaneous Representations**. You confirm and represent to Cerner, by signing this letter agreement, that: (a) you have wholly relied upon your own judgment, belief and knowledge and the advice of your counsel, and (b) you understand and accept all of the terms and conditions of this letter agreement.

By signing below, we each acknowledge this as a binding agreement.

Sincerely,

/s/ William D. Zollars
William D. Zollars
Lead Director
Accepted and Agreed:

/s/ Brent Shafer
D. Brent Shafer

TRANSITION AGREEMENT

This Transition Agreement ("Transition Agreement"), is made by and between Cerner Corporation (together with its subsidiaries and affiliates, "Cerner") and D. Brent Shafer ("you" or "your" and, together with Cerner, the "parties").

RECITALS

WHEREAS, you are currently, and have been since February 1, 2018, the Chairman of the Board ("Chairman") and Chief Executive Officer ("CEO") of Cerner;

WHEREAS, you entered into a Cerner Executive Employment Agreement with Cerner, effective as of February 1, 2018, as amended by that certain letter agreement, dated February 19, 2021 (as amended, your "Employment Agreement"), and a Mutual Arbitration Agreement with Cerner dated January 10, 2018 (your "Arbitration Agreement");

WHEREAS, you entered into a letter agreement with Cerner dated April 30, 2021 regarding your transition to Senior Advisor and departure (the "Letter Agreement");

WHEREAS, in order to provide for a smooth and orderly transition to your successor (the "Successor CEO"), the parties have mutually agreed that you will continue to serve as CEO and Chairman until the earlier of when the Successor CEO commences service as CEO and December 31, 2021, and you will provide services thereafter to Cerner until May 31, 2022 (your "Departure Date") in accordance with the Letter Agreement; and

WHEREAS, in consideration for the compensation described in the Letter Agreement and herein, and other good and valuable consideration, the receipt and sufficiency of which you and Cerner hereby acknowledge, you agree to the terms contained herein and, as described below, agree to provide services through your Departure Date and provide the releases described in this Transition Agreement with respect to matters relating to or arising out of your employment with Cerner.

NOW, THEREFORE, in consideration of the mutual covenants, promises, and obligations set forth herein, the parties agree as follows:

1. **DEPARTURE ARRANGEMENT AND BENEFITS AND TRANSITION SERVICES.** Cerner and you agreed to the terms of the Letter Agreement, which is incorporated herein by reference, and subject to your acceptance and timely return of this Transition Agreement to Cerner, without revocation, Cerner agrees to compensate you and accelerate certain of your Cerner Equity Awards (as defined in the Letter Agreement) in accordance with the Letter Agreement. Each of the grant instruments for any Cerner Equity Award the vesting or exercise of which is adjusted by this Paragraph 1 is hereby deemed amended as of the Effective Date of this Transition Agreement.

2. **PAYMENT IN THE EVENT OF DEATH.** In the event of your death prior to the date on which you would be paid any amounts under Paragraph 1, Cerner will pay to your

designated beneficiary separately communicated to Cerner (your “Beneficiary”) the same payment and benefits that you would have received under Paragraph 1; provided, that your Beneficiary completes and delivers a Form W-9 to Cerner. You may revoke or change your Beneficiary designation at any time by delivering to Cerner a written document signed by you with the attestation of a notary stating that you are revoking or changing the designation, provided that such document is delivered while you are still alive and of sound mind. If your Beneficiary does not survive you or if your deaths are simultaneous, this paragraph and designation shall be void and of no effect, and any payments due under Paragraph 1 shall be made to your estate.

3. **YOUR RELEASE OF CLAIMS.** In consideration for the payment and other benefits eligible to be received under this Transition Agreement and on behalf of yourself and your successors, assigns, agents, heirs and descendants, you hereby acquit, release and forever discharge Cerner and its affiliates and subsidiaries, and all of their successors, assigns, officers, directors, agents, servants, employees, shareholders, fiduciaries, attorneys and representatives, whether past or present for all of the foregoing (collectively, the “Cerner Released Parties”) from any and all manner of claims, debts, damages, injuries, judgments, awards, executions, demands, liabilities, obligations, suits, actions and causes of action, whether known or unknown, fixed or contingent, accrued or to accrue, direct or indirect, and whether at law or in equity, which you may have against the Cerner Released Parties, including, but not limited to, those arising out of or by reason of your employment by Cerner, or with respect to your departure from employment with Cerner and/or its subsidiaries, or with respect to claims for expenses, salary, incentive payments or equity grants against Cerner.

Without in any way limiting the generality of the foregoing, you acknowledge and agree that you are hereby releasing and discharging Cerner and all other Cerner Released Parties from any and all manner of claims, debts, damages, injuries, judgments, awards, executions, demands, liabilities, obligations, suits, actions and causes of action that may be asserted under any local, state, federal, statutory or common law relating to discrimination in employment including, without limitation, discrimination relating to race, ethnicity, religion, sex, pregnancy, disability, equal pay, age, veteran status, national origin, creed, color, and retaliation, and including claims under Title VII of the Civil Rights Act of 1964, the Civil Rights Act of 1991, the Americans with Disabilities Act, the Equal Pay Act, the Age Discrimination in Employment Act, Family and Medical Leave Act, 42 U.S.C. Sections 1981, 1983 and 1985, the Employee Retirement Income Security Act (“ERISA”), Workmen’s Compensation laws, Consolidated Omnibus Budget Reconciliation Act, the Worker Adjustment and Retraining Notification Act, Executive Order 11246, the Rehabilitation Act, veterans’ laws, all federal, state and local laws related to libel, slander, defamation, invasion of privacy, breach of contract, outrageous conduct, intentional or negligent infliction of emotional distress, respondent superior, negligent hiring or retention, and all other laws and ordinances which are meant to protect workers in their employment relationships and under which you might have rights and claims.

A. **Includes Release of ADEA Claims.** You understand and agree that you are releasing Cerner and all other Cerner Released Parties from all rights and claims of discrimination relating to age, including all rights and claims under the Age Discrimination in Employment Act of 1967, as amended (hereinafter referred to as "ADEA").

B. Nothing in this Transition Agreement is intended to, or shall, interfere with your rights under federal, state, or local civil rights or employment discrimination laws to file or otherwise institute a charge of discrimination, to participate in a proceeding with any appropriate federal, state, or local government agency enforcing discrimination laws, or to cooperate with any such agency in its investigation, none of which shall constitute a breach of this Transition Agreement. You shall not, however, be entitled to any relief, recovery, or monies in connection with any such action or investigation brought against Cerner, regardless of who filed or initiated any such complaint, charge, or proceeding. Nothing in this Transition Agreement is intended to, or shall, interfere with your right to file a claim for unemployment benefits (if any), or to file a claim asserting any causes of action which by law you may not legally waive.

C. Nothing in this Transition Agreement is intended to, or shall, interfere with (1) your rights to indemnification under Cerner's bylaws (and Cerner agrees to keep in force sufficient directors and officers' insurance to protect you against such potential liabilities for a period of ten years from your Departure Date) or liability insurance policy; (2) your rights to vested ERISA benefits; (3) any rights as a stockholder of the Company, and (4) your rights under the Letter Agreement or this Transition Agreement.

4. **CERNER'S RELEASE OF CLAIMS.** Cerner, its affiliates and subsidiaries and all of their successors and assigns (collectively, the "Cerner Parties") hereby acquit, release and forever discharge you and your successors, assigns, agents, heirs and descendants, from any and all manner of claims, debts, damages, injuries, judgments, awards, executions, demands, liabilities, obligations, suits, actions and causes of action that have accrued as of and are known to Cerner on your Departure Date, whether direct or indirect and whether at law or in equity, which the Cerner Parties may have against you arising out of your employment with Cerner. The Cerner Parties' release of claims does not apply to claims related to the enforcement of or your failure to comply with this Transition Agreement or your violation of your noncompetition, confidentiality, and non-solicitation obligations.

5. **OBLIGATIONS WITH RESPECT TO CONFIDENTIALITY AND WORK PRODUCT.** You acknowledge and agree that all confidentiality obligations and covenants and obligations and covenants with respect to Work Product (as such term is defined in the Employment Agreement) set forth in your Employment Agreement or any other employment agreement that you signed at the time of or during your employment by Cerner or any of its subsidiaries shall continue in full force and effect, including during such time as you are providing Services (as defined in the Letter Agreement) to Cerner.

Nothing in this Transition Agreement shall (i) prohibit you from disclosing confidential information in connection with reporting possible violations of law or regulation to any governmental agency or entity or attorney in accordance with any whistleblower protection provisions of applicable law or regulation, including 18 USC 1833, or (ii) require notification or prior approval by Cerner of any reporting described in clause (i); provided, however, that any such disclosures must be made in accordance with the applicable law or regulation and in a manner that limits, to the furthest extent possible, disclosure of confidential information.

6. **CONSIDERATION PERIOD.** You acknowledge that you have twenty-one (21) days from the date you received this Transition Agreement in which to consider it, although you may sign this Transition Agreement earlier than twenty-one (21) days if you so choose. You further understand that you have the right to revoke this Transition Agreement by delivering written notice to Cerner during the seven-day period after you sign it. This Transition Agreement shall become effective after the seven-day revocation period has expired assuming you do not revoke it (the "Effective Date").

7. **NO FURTHER PAYMENTS.** You agree that after your Departure Date, Cerner will owe no additional compensation to you other than: (i) your final paycheck covering the period through your Departure Date, and (ii) the benefits and payments described in Paragraph 1. You agree that amounts paid pursuant to this Transition Agreement shall be in full and final satisfaction of any amounts or other benefits that could be owed to you under any other agreement you may have entered into with Cerner or, except as required by law or specifically provided herein, any other Cerner benefit plan or arrangement, including but not limited to your Employment Agreement, the Enhanced Severance Pay Plan or the Business Optimization Severance Pay Plan.

8. **FORFEITURE AND REIMBURSEMENT.** By signing this Transition Agreement, you agree that the promises you have made in it are of a special nature and that any material breach or material violation by you of the terms of this Transition Agreement will result in immediate and irreparable harm to Cerner. If you are found by a court or arbitrator to have committed a material breach of any confidentiality, non-competition, non-solicitation or other material provision in this Transition Agreement or your Employment Agreement, (i) Cerner's obligation, if applicable, to deliver payments and benefits to you under this Transition Agreement or the Letter Agreement will cease immediately, (ii) you will be obligated to reimburse Cerner for all payments already made to you under Paragraph 1 prior to the breach, (iii) any outstanding Cerner equity award held by you on the date of the breach will immediately be forfeited notwithstanding any contrary term or condition in any underlying grant instrument. Cerner will also be entitled to all other legal and equitable remedies available to it by law; and (iv) you will be obligated to return to Cerner all shares of Cerner common stock (or the proceeds from the sale of such shares if such shares have been sold) received by you under, or as a result of your exercise of, a

Cerner Equity Award which was subject to accelerated vesting in accordance with Paragraph 1. Cerner will also be entitled to all other legal and equitable remedies available to it by law.

9. **NONADMISSION OF LIABILITY.** You understand and agree that neither this Transition Agreement nor any action taken hereunder is to be construed as an admission of liability by Cerner or any of the Cerner Released Parties.

10. **VOLUNTARY EXECUTION.** You acknowledge that you have read this Transition Agreement in its entirety, that you understand its contents, and that you have executed it voluntarily. You further acknowledge that you have consulted with your attorney prior to signing this Transition Agreement.

11. **COMPLIANCE WITH SECTION 409A; TAX WITHHOLDING OBLIGATIONS.** Notwithstanding any other provision of this Transition Agreement, all payments provided hereunder shall be made in a manner that is intended to comply with Section 409A or an applicable exemption thereto, including the separation pay and short-term deferral exceptions. Any payment provided under this Transition Agreement which is required to be delayed for six (6) months following your separation from service and on account of you being a “specified employee” of Cerner shall be so delayed. For purposes of Section 409A, each installment payment provided under this Transition Agreement shall be treated as a separate payment. Notwithstanding the foregoing, Cerner makes no representations that the payments and benefits provided under this Transition Agreement comply with Section 409A, and in no event shall Cerner be liable for all or any portion of any taxes, penalties, interest, or other expenses that may be incurred by you on account of non-compliance with Section 409A. The parties acknowledge and agree that your Departure Date shall be deemed to be your separation from service date for purposes of Section 409A. All payments of compensation, benefits, bonuses and severance payments under this Transition Agreement are subject to all applicable payroll tax withholding requirements.

12. **NOTICE.** All notices, requests, demands and other communications hereunder shall be deemed duly given if delivered by hand or if mailed by certified or registered mail or sent by express courier with postage or charges prepaid as follows:

If to Cerner:

Cerner Corporation
2800 Rockcreek Parkway
North Kansas City, MO 64117-2551
Attn: Chief Legal Officer
If to you:

At the address on file with Cerner’s HR department or to any other address as either party may provide to the other in writing by notice given in accordance with this paragraph.

13. MUTUAL NON-DISPARAGEMENT. From and after the Departure Date, you agree not to make any statement, whether direct or indirect, whether true or false, that is intended to become public, or that should reasonably be expected to become public, and that criticizes, ridicules, disparages or is otherwise derogatory of the Cerner companies or its employees, officers, directors or stockholders. Cerner shall (i) not release any public statement (or statement that is intended or reasonably expected to become public) and (ii) instruct its executive officers and the members of the Board of Directors that, from and after the Departure Date, they shall not make any statement that is intended to become public, or that should reasonably be expected to become public, in either case that criticizes, ridicules, disparages or is otherwise derogatory of you. This Section shall not, however, prohibit you from testifying truthfully as a witness in any court proceeding, governmental investigation or other legal process, or to defend or enforce your rights under this Transition Agreement or the Letter Agreement.

14. NOTICE TO SUBSEQUENT EMPLOYER. You agree to inform any potential new employer, prior to accepting such employment, of the existence of the non-competition, non-solicitation and confidentiality provisions contained in this Transition Agreement and your Employment Agreement.

15. GOVERNING LAW. This Transition Agreement shall be governed by and construed in accordance with the laws of the State of Missouri to the extent not governed or preempted by federal law.

16. SEVERABILITY. If any provision of this Transition Agreement is held to be unenforceable, this Transition Agreement will be deemed amended to the extent necessary to render the otherwise unenforceable provision—and the rest of this Transition Agreement—valid and enforceable. If an arbitrator (or court) declines to amend this Transition Agreement as provided in this paragraph, the invalidity or unenforceability of any provision of this Transition Agreement will not affect the validity or enforceability of the remaining provisions, which must be enforced as if the offending provision had not been included in this Transition Agreement.

17. COMPLETE AGREEMENT. This Transition Agreement constitutes the full, complete and entire agreement of the parties related to the separation benefits to which you are entitled. Without limitation, the benefits and payments under this Transition Agreement (and the Letter Agreement) supersede and replace any benefits or payments you might otherwise be eligible to receive under your Employment Agreement, the Cerner Enhanced Severance Pay Plan, any successor thereto, or any other broad-based Cerner severance plan or policy which otherwise would be applicable to you. However, the parties agree that your Employment Agreement (excluding any right you have to any severance payment or severance benefit thereunder), otherwise remains in full force and effect. For the avoidance of doubt, your Arbitration Agreement shall survive this Transition Agreement, and the parties agree that your Arbitration Agreement will govern any disputes between the parties related to this Transition Agreement. In making this Transition Agreement, the parties rely wholly upon their own judgment, belief and knowledge and the advice of their respective counsel. All executed copies, whether signed in counterparts or otherwise, or duplicate originals, are equally admissible in evidence.

18. **COUNTERPARTS.** This Transition Agreement may be executed via electronic transmission or executed in any number of counterparts, each of which shall be deemed to be an original, but all of which together shall constitute one and the same agreement, and the approval by electronic transmission of the undersigned or signature of the undersigned transmitted by facsimile, or as an attachment to an electronic mail message in “pdf” or similar format, shall be deemed to be their execution of this Transition Agreement and such execution by electronic transmission or signature by any permitted means shall have the same force and effect as if an original signed counterpart was delivered in person.

This Transition Agreement is executed as of this [__] day of ____ 202_.

__
D. Brent Shafer

Cerner Corporation

By: ____
Daniel P. Devers
Executive Vice President and Chief Legal Officer

Exhibit 31.1

CERTIFICATION

I, Brent Shafer, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Cerner Corporation;

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: July 30, 2021

/s/ Brent Shafer
Brent Shafer
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION

I, Mark J. Erceg, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Cerner Corporation;

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: July 30, 2021

/s/ Mark J. Erceg
Mark J. Erceg
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

**CERTIFICATION FURNISHED 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 filing of the Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2021 (the "Report") by Cerner Corporation (the "Company"), the undersigned Chief Executive Officer of the Company hereby certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

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

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

/s/ Brent Shafer
Brent Shafer, Chairman of the Board
and Chief Executive Officer
(Principal Executive Officer)
Date: July 30, 2021

Exhibit 32.2

**CERTIFICATION FURNISHED 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 filing of the Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2021 (the "Report") by Cerner Corporation (the "Company"), the undersigned Chief Financial Officer of the Company hereby certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

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

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

/s/ Mark J. Erceg
Mark J. Erceg, Executive Vice President
and Chief Financial Officer
(Principal Financial Officer)
Date: July 30, 2021