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

FORM 10-Q

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

For the quarterly period ended September 30, 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 001-39096

AKERNA CORP.
(Exact name of registrant as specified in its charter)

Delaware	**83-2242651**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
1550 Larimer Street, #246 Denver, Colorado	80202
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (888) 932-6537

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, $0.0001 par value per share	KERN	Nasdaq Stock Market LLC (Nasdaq Capital Market)
Warrants to purchase one share of common stock	KERNW	Nasdaq Stock Market LLC (Nasdaq Capital Market)

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, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

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

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

As of November 9, 2021, there were 30,735,549 shares of the registrant's common stock, par value $0.0001 per share, outstanding.

	INDEX	Page Number
PART I	**FINANCIAL INFORMATION**	

AKERNA CORP.
Condensed Consolidated Balance Sheets
(unaudited)

	September 30, 2021	December 31, 2020
Assets		
Current assets:		
Cash	$ 9,608,788	$ 17,840,640
Restricted cash	508,261	500,000
Accounts receivable, net	1,647,619	1,753,547
Prepaid expenses and other current assets	2,194,221	2,458,727
Total current assets	13,958,889	22,552,914
Fixed assets, net	52,322	1,193,433
Investment, net	226,101	233,664
Capitalized software, net	6,167,413	3,925,739
Intangible assets, net	7,311,541	7,388,795
Goodwill	46,790,018	41,874,527
Total Assets	$ 74,506,284	$ 77,169,072
Liabilities and Equity		
Current liabilities		
Accounts payable, accrued expenses and other accrued liabilities	$ 5,185,519	$ 3,188,576
Deferred revenue	908,256	843,900
Current portion of long-term debt	—	11,707,363
Derivative liability	160,201	311,376
Total current liabilities	6,253,976	16,051,215
Long-term debt, less current portion	3,834,001	3,895,237
Total liabilities	10,087,977	19,946,452
Commitments and contingencies (Note 7)	—	—
Equity:		
Preferred stock, par value $0.0001; 5,000,000 shares authorized, 1 share special voting preferred stock issued and outstanding at September 30, 2021 and December 31, 2020	—	—
Special voting preferred stock, par value $0.0001; 1 share authorized, issued and outstanding as of September 30, 2021 and December 31, 2020, with $1 preference in liquidation; exchangeable shares, no par value, 385,947 and 2,667,349 shares issued and outstanding as of September 30, 2021 and December 31, 2020 respectively (See Note 4)	2,952,495	20,405,219
Common stock, par value $0.0001; 75,000,000 shares authorized, 27,167,917 and 19,901,248 issued and outstanding at September 30, 2021 and December 31, 2020, respectively	2,717	1,990
Additional paid-in capital	132,803,659	94,086,433
Accumulated other comprehensive loss	(44,639)	(91,497)
Accumulated deficit	(71,295,925)	(57,179,525)
Total equity	$ 64,418,307	$ 57,222,620
Total liabilities and equity	$ 74,506,284	$ 77,169,072

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

AKERNA CORP.
Condensed Consolidated Statements of Operations
(unaudited)

	For the Three Months Ended September 30, 2021	For the Three Months Ended September 30, 2020	For the Nine Months Ended September 30, 2021	For the Nine Months Ended September 30, 2020
Revenues				
Software	$ 4,557,960	$ 3,323,592	$ 12,809,841	$ 8,519,635
Consulting	551,402	332,587	1,135,033	1,156,171
Other	26,140	57,825	111,540	112,381
Total revenues	5,135,502	3,714,004	14,056,414	9,788,187
Cost of revenues	1,971,382	1,739,937	5,339,929	4,954,721
Gross profit	3,164,120	1,974,067	8,716,485	4,833,466
Operating expenses				
Product development	1,566,478	1,758,826	4,517,836	3,722,551
Sales and marketing	2,002,461	2,097,502	5,564,519	6,255,371
General and administrative	2,077,474	2,470,187	8,306,417	9,053,476
Depreciation and amortization	1,238,420	1,171,022	3,605,435	2,387,629
Total operating expenses	6,884,833	7,497,537	21,994,207	21,419,027
Loss from operations	(3,720,713)	(5,523,470)	(13,277,722)	(16,585,561)
Other (expense) income:				
Interest (expense) income, net	(238,283)	(3,687)	(1,175,789)	27,751
Change in fair value of convertible notes	(23,227)	778,000	(2,030,904)	1,544,000
Change in fair value of derivative liability	194,046	762,646	151,175	392,605
Gain on forgiveness of PPP Loan	2,234,730	—	2,234,730	—
Other (expense) income, net	—	—	243	(124)
Total other (expense) income	2,167,266	1,536,959	(820,545)	1,964,232
Net loss before income taxes and equity in losses of investee	(1,553,447)	(3,986,511)	(14,098,267)	(14,621,329)
Income tax expense	—	—	(10,570)	(30,985)
Equity in losses of investee	—	(1,534)	(7,564)	(5,225)
Net loss	(1,553,447)	(3,988,045)	(14,116,401)	(14,657,539)
Net loss attributable to noncontrolling interest in consolidated subsidiary	—	8,815	—	858,574
Net loss attributable to Akerna shareholders	$ (1,553,447)	$ (3,979,230)	$ (14,116,401)	$ (13,798,965)
Basic and diluted weighted average common stock outstanding	26,442,446	13,934,945	24,312,510	13,181,691
Basic and diluted net loss per common share	$ (0.06)	$ (0.29)	$ (0.58)	$ (1.05)

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

AKERNA CORP
Condensed Consolidated Statements of Comprehensive Loss
(unaudited)

	For the Three months ended September 30,		For the Nine months ended September 30,	
	2021	2020	2021	2020
Net loss	$ (1,553,447)	$ (3,988,045)	$ (14,116,401)	$ (14,657,539)
Other comprehensive (loss) income:				
Foreign currency translation	63,905	—	65,858	—
Unrealized (loss) gain on convertible notes	(3,000)	(70,000)	(19,000)	(7,000)
Comprehensive loss	$ (1,492,542)	$ (4,058,045)	$ (14,069,543)	$ (14,664,539)

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

AKERNA CORP.
Condensed Consolidated Statements of Changes in Equity
For the Three Months Ended September 30, 2021
(unaudited)

	Special Voting Preferred Stock		Common		Additional Paid-In	Accumulated Other Comprehensive	Accumulated	Total
	Share	Amount	Shares	Amount	Capital	Income	Deficit	Equity
Balance – July 1, 2021	1,039,373	$ 7,951,203	25,332,439	$ 2,533	$ 123,856,649	$ (105,544)	$ (69,742,478)	$ 61,962,363
Conversion of Exchangeable Shares to common stock	(653,426)	(4,998,708)	653,426	66	4,998,642	—	—	—
Settlement of convertible debt	—	—	470,634	47	1,413,895	—	—	1,413,942
Shares withheld for withholding taxes	—	—	(31,422)	(3)	(103,704)	—	—	(103,707)
Shares issued in connection with Asset Purchase	—	—	83,333	8	299,992	—	—	300,000
Stock-based compensation	—	—	—	—	510,132	—	—	510,132
Shares issued in connection with the ATM program	—	—	556,388	56	1,828,063	—	—	1,828,119
Restricted stock vesting	—	—	103,119	10	(10)	—	—	—
Forfeitures of restricted shares	—	—	—	—	—	—	—	—
Foreign currency translation adjustments	—	—	—	—	—	63,905	—	63,905
Unrealized loss (gains) on convertible notes	—	—	—	—	—	(3,000)	—	(3,000)
Net loss	—	—	—	—	—	—	(1,553,447)	(1,553,447)
Balance – September 30, 2021	385,947	$ 2,952,495	27,167,917	$ 2,717	$ 132,803,659	$ (44,639)	$ (71,295,925)	$ 64,418,307

AKERNA CORP.
Condensed Consolidated Statements of Changes in Equity
For the Nine Months Ended September 30, 2021
(unaudited)

	Special Voting Preferred Stock		Common		Additional Paid-In	Accumulated Other Comprehensive	Accumulated	Total
	Share	Amount	Shares	Amount	Capital	Income	Deficit	Equity
Balance – January 1, 2021	2,667,349	$ 20,405,219	19,901,248	$ 1,990	$ 94,086,433	$ (91,497)	$ (57,179,524)	$ 57,222,621
Conversion of Exchangeable Shares to common stock	(2,281,402)	(17,452,724)	2,281,402	228	17,452,496	—	—	—
Settlement of convertible debt	—	—	3,094,129	309	11,610,278	—	—	11,610,587
Shares withheld for withholding taxes	—	—	(80,370)	(8)	(437,546)	—	—	(437,554)
Shares issued in connection with Viridian Acquisition	—	—	1,000,000	100	6,001,900	—	—	6,002,000
Shares issued in connection with Asset Purchase	—	—	83,333	8	299,992	—	—	300,000
Stock-based compensation	—	—	—	—	1,584,755	—	—	1,584,755
Shares issued in connection with the ATM program	—	—	556,388	56	1,828,060	—	—	1,828,116
Settlement of liabilities with shares	—	—	101,705	10	377,315	—	—	377,325
Restricted stock vesting	—	—	231,418	24	(24)	—	—	—
Forfeitures of restricted shares	—	—	(1,336)	—	—	—	—	—
Foreign currency translation adjustments	—	—	—	—	—	65,858	—	65,858
Unrealized loss (gains) on convertible notes	—	—	—	—	—	(19,000)	—	(19,000)
Net loss	—	—	—	—	—	—	(14,116,401)	(14,116,401)
Balance – September 30, 2021	385,947	$ 2,952,495	27,167,917	$ 2,717	$ 132,803,659	$ (44,639)	$ (71,295,925)	$ 64,418,307

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

AKERNA CORP.
Condensed Consolidated Statements of Changes in Equity
For the Three Months Ended September 30, 2020
(unaudited)

	Special Preferred Voting Stock	Common		Additional Paid-In Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Shareholders' Equity	Non controlling Interests in Consolidated Subsidiary	Total Equity
	Amount	Share	Amount						
Balance – June 30, 2020	$ —	13,203,806	$ 1,321	$ 71,902,474	$ 63,000	$ (41,160,245)	$ 30,806,550	$ 4,704,252	$ 35,510,802
Adoption of ASC 606 Adjustment	—	—	—	—	—	185,826	185,826	—	185,826
Balance, July 1. 2020	—	13,203,806	1,321	71,902,474	63,000	(40,974,419)	30,992,376	4,704,252	35,696,628
Special voting preferred stock issued in business combination	25,203,490	—	—	—	—	—	25,203,490	—	25,203,490
Conversion of exchangeable shares to common stock	(4,798,271)	627,225	63	4,798,208	—	—	—	—	—
Acquisition of noncontrolling interest	—	800,000	80	4,695,357	—	—	4,695,437	(4,695,437)	—
Stock-based compensation	—	—	—	764,351	—	—	764,351	—	764,351
Restricted stock vesting	—	3,025	—	—	—	—	—	—	—
Unrealized loss (gain) on convertible notes	—	—	—	—	(70,000)	—	(70,000)	—	(70,000)
Net loss	—	—	—	—	—	(3,979,230)	(3,979,230)	(8,815)	(3,988,045)
Balance – September 30, 2020	$ 20,405,219	14,634,056	$ 1,464	$ 82,160,390	$ (7,000)	$ (44,953,649)	$ 57,606,424	—	57,606,424

AKERNA CORP.
Condensed Consolidated Statements of Changes in Equity
For the Nine Months Ended September 30, 2020
(unaudited)

	Special Preferred Voting Stock	Common		Additional Paid-In Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Shareholders' Equity	Non controlling Interests in Consolidated Subsidiary	Total Equity
	Amount	Share	Amount						
Balance – January 1, 2020	$ —	10,921,485	$ 1,093	$ 51,060,652	$ —	$ (31,340,510)	$ 19,721,235	—	19,721,235
Special voting preferred stock issued in business combination	25,203,490	—	—	—	—	—	25,203,490	—	25,203,490
Conversion of exchangeable shares to common	(4,798,271)	627,225	63	4,798,208	—	—	—	—	—
Common stock issued in business combination	—	2,299,650	230	20,081,236	—	—	20,081,466	—	20,081,466
Noncontrolling interests in acquired subsidiary	—	—	—	—	—	—	—	5,554,011	5,554,011
Adoption of ASC 606 Adjustment	—	—	—	—	—	185,826	185,826	—	185,826
Acquisition of noncontrolling interest	—	800,000	80	4,695,357	—	—	4,695,437	(4,695,437)	—
Stock-based compensation	—	—	—	1,524,935	—	—	1,524,935	—	1,524,935
Restricted stock vesting	—	3,025	—	—	—	—	—	—	—
Forfeitures of restricted shares	—	(17,329)	(2)	2	—	—	—	—	—
Unrealized loss (gain) on convertible notes	—	—	—	—	(7,000)	—	(7,000)	—	(7,000)
Net loss	—	—	—	—	—	(13,798,965)	(13,798,965)	(858,574)	(14,657,539)
Balance – September 30, 2020	$ 20,405,219	14,634,056	$ 1,464	$ 82,160,390	$ (7,000)	$ (44,953,649)	$ 57,606,424	—	57,606,424

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

AKERNA CORP.
Condensed Consolidated Statements of Cash Flows
(unaudited)

	For the Nine Months Ended September 30, 2021	2020
Cash flows from operating activities		
Net loss	$ (14,116,401)	$ (14,657,539)
Adjustment to reconcile net loss to net cash used in operating activities:		
Equity in losses of investment	7,564	5,226
Bad debt	254,029	382,607
Stock-based compensation expense	1,584,751	1,524,935
Loss on write off of fixed assets	1,045,179	—
Gain on forgiveness of PPP loan	(2,234,730)	—
Amortization of deferred contract cost	356,528	—
Non-cash interest expense	1,161,393	—
Depreciation and amortization	3,605,434	2,387,629
Debt issuance costs	—	1,220,557
Foreign currency loss	21,496	4,901
Change in fair value of convertible notes	2,030,904	(1,544,000)
Change in fair value of derivative liability	(151,175)	(392,605)
Change in fair value of contingent consideration	—	(1,387,000)
Changes in operating assets and liabilities:		
Accounts receivable	462,482	(423,850)
Prepaid expenses and other current assets	66,246	(232,180)
Accounts payable and accrued liabilities	1,756,672	914,712
Deferred revenue	(927,916)	(261,760)
Net cash used in operating activities	(5,077,544)	(12,458,367)
Cash flows from investing activities		
Developed software additions	(3,354,453)	(2,698,379)
Furniture, fixtures, and equipment additions	(11,535)	(168,839)
Cash paid for business combination, net of cash acquired	—	(5,142,159)
Net cash used in investing activities	(3,365,988)	(8,009,377)
Cash flows from financing activities		
Value of shares withheld for related to tax withholdings	(437,554)	—
Proceeds from stock offering, net	1,828,116	—
Proceeds from issuance of long term debt	—	17,164,600
Payments of principal amounts of debt	(1,164,706)	—
Cash paid for debt issuance costs	—	(1,220,557)
Net cash provided by financing activities	225,856	15,944,043
Effect of exchange rate changes on cash and restricted cash	(5,915)	662
Net change in cash and restricted cash	(8,223,591)	(4,523,039)
Cash and restricted cash - beginning of period	18,340,640	19,280,897
Cash and restricted cash - end of period	$ 10,117,049	$ 14,757,858
Cash paid for interest	105,882	1,559
Cash paid for taxes	10,570	30,985
Supplemental Disclosure of non-cash investing and financing activity:		
Settlement of convertible notes in common stock	10,448,932	—
Conversion of exchangeable shares to common stock	17,452,497	4,798,208
Settlement of other liabilities in common stock	377,315	—
Acquisition of noncontrolling interest	—	4,695,357
Special voting preferred stock issued in business combination	—	25,203,490
Assets acquired and liabilities assumed in business combinations:		
Cash	—	445,269
Accounts receivable	556,234	994,710
Prepaid expenses and other current assets	148,417	176,441
Fixed assets	—	1,329,406
Intangible assets	1,733,000	12,180,000
Goodwill	4,915,491	46,500,030
Accounts payable and accrued liabilities	349,735	2,414,930
Deferred revenue	1,001,408	580,531
Contingent consideration	—	2,204,000

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

Note 1 - Description of Business

Description of Business

Akerna Corp., herein referred to as we, us, our, or Akerna, through our wholly owned subsidiaries MJ Freeway, LLC, or MJF, Trellis Solutions, Inc., or Trellis, Ample Organics, Inc, or Ample, Viridian Sciences, Inc, or Viridian, and solo sciences, inc, or Solo, provides enterprise software solutions that enable regulatory compliance and inventory management. Our proprietary, broad and growing suite of solutions are adaptable for industries in which interfacing with government regulatory agencies for compliance purposes is required, or where the tracking of organic materials from seed or plant to end products is desired. We develop products intended to assist states in monitoring licensed businesses' compliance with state regulations and to help state-licensed businesses operate in compliance with such law. We provide our commercial software platform, MJ Platform®, Trellis® and Viridian Sciences® to state-licensed businesses, and our regulatory software platform, Leaf Data Systems®, to state government regulatory agencies. Through Solo, we provide an innovative, next-generation solution for state and national governments to securely track product and waste throughout the supply chain with solo*TAG™. The integration of MJ Platform® and solo*CODE™ results in technology for consumers and brands that brings a consumer-facing mark designed to highlight the authenticity and signify transparency.

We consult with clients on a wide range of areas to help them successfully maintain compliance with state laws and regulations. We provide project-focused consulting services to clients who are initiating or expanding their cannabis business operations or are interested in data consulting engagements with respect to the legal cannabis industry. Our advisory engagements include service offerings focused on compliance requirement assessments, readiness and best practices, compliance monitoring systems, application processes, inspection readiness and business plan and compliance reviews. We typically provide our consulting services to clients in emerging markets that are seeking consultation on newly introduced licensing regimes and assistance with the regulatory compliant build-out of operations.

Liquidity and Capital Resources

Since our inception, we have incurred recurring operating losses, used cash from operations, and relied on capital raising transactions to continue ongoing operations. During the three and nine months ended September 30, 2021, we incurred a loss from operations of $3.7 million and $13.3 million, respectively, and for the nine months ended September 30, 2021, we used cash in operations of $5.2 million. As of September 30, 2021, we had cash of $9.6 million, excluding restricted cash, and working capital of $7.7 million. During the nine months ended September 30, 2021, the Company incurred a number of one-time, non-recurring expenses of approximately $2.9 million. These expenses include business combination and merger related costs, restructuring charges, and other non-recurring charges.

On July 23, 2021, we entered into an Equity Distribution Agreement with Oppenheimer & Co. Inc. and A.G.P./Alliance Global Partners ("ATM Program"). Pursuant to the terms of the Agreement, we may offer and sell from time to time, up to $25 million of shares of our common stock. As of September 30, 2021, we have raised $1.9 million through the issuance of 556,388 shares through the ATM program. While no assurance can be provided that we will be able to raise further capital under the program, we intend to use the net proceeds from the sale of our shares of common stock, if any, for general corporate purposes, including working capital, marketing, product development, capital expenditures and merger and acquisition activities.

Subsequent to yearend, on October 5, 2021, we entered into a securities purchase agreementwith the two institutional investors that held the Company's convertible notes issued in June of 2020 (the "2020 Notes") to sell senior secured notes in a private placement (the "Senior Convertible Notes"). The Senior Convertible Notes have an aggregate principal amount of $20,000,000, an aggregate original issue discount of 10%, and rank senior to all our other outstanding and future indebtedness. Approximately $3.3 million of the proceeds from the Senior Convertible Notes were used to payoff the2020 Notes, which were then to be cancelled. The net proceeds from the issuance of the Senior Convertible Notes was approximately $14.6 million, following the original issue discount and deductions for expenses and paydown of the 2020 Notes. These net proceeds will be used to support Akerna's ongoing growth initiatives and continued investment in current and future technology infrastructure. The Senior Convertible Notes are convertible into shares of common stock of Akerna at a conversion price of $4.05 per share. The Senior Convertible Notes mature on October 5, 2024 and are to be repaid in monthly installments beginning on January 1, 2022. The Senior Convertible Notes can be repaid in common shares or cash.

After considering all available evidence, we determined that, due to our current positive working capital, our ability to repay our senior secured convertible note with shares of our common stock, the funds raised from the ATM Program and the Senior Convertible Notes, as well as our ongoing initiatives to drive operating effectiveness, that we have sufficient working capital to sustain operations for a period of at least twelve months from the date that our September 30, 2021 financial statements were issued.

In the event the Company requires additional liquidity, the Company believes it can further reduce or defer expenses. More specifically, the Company could implement certain discretionary cost reduction initiatives relating to our spending on employee travel and entertainment, consulting costs and marketing expenses, negotiate deferred salary arrangements, furlough employees or reduce headcount or negotiate extensions of payments of rent and utilities. The Company also believes it has access to capital through future debt or equity offerings and could be successful in renegotiating the maturity dates or conversion option relating to its current outstanding notes payable, although no assurance can be provided that we would be successful in these efforts. Management will continue to evaluate our liquidity and capital resources.

Note 2 - Summary of Significant Accounting Policies

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP") and with the instructions to Form 10-Q and Article 8 of Regulation S-X. Certain footnotes and other financial information normally required by GAAP, have been condensed or omitted in accordance with such rules and regulations. In management's opinion, these condensed consolidated financial statements have been prepared on the same basis as our annual consolidated financial statements and notes thereto and include all adjustments, consisting of normal recurring items, considered necessary for the fair presentation. The operating results for the three and nine months ended September 30, 2021 are not necessarily indicative of the results that may be expected for the fiscal year ending December 31, 2021.

The condensed consolidated balance sheet as of and for the period ended December 31, 2020, has been derived from our audited financial statements at that date but does not include all disclosures and financial information required by GAAP for complete financial statements. The information included in this quarterly report on Form 10-Q should be read in conjunction with our consolidated financial statements and notes thereto for the period ended December 31, 2020, which were included in our report on Form 10-KT filed on March 31, 2021.

Principles of Consolidation

Our accompanying condensed consolidated financial statements include the accounts of Akerna, our wholly owned subsidiaries and those entities in which we otherwise have a controlling financial interest. All significant intercompany balances and transactions have been eliminated in consolidation.

We evaluate our ownership interests, contractual rights, and other interests in entities to determine if the entities are variable interest entities, or VIEs, when we have a variable interest in those entities. Generally, a VIE is a legal entity in which the equity investors do not have the characteristics of a controlling financial interest or the equity investors lack sufficient equity at risk for the entity to finance its activities without additional subordinated financial support. These evaluations can be complex and involve judgment and the use of estimates and assumptions based on available historical information.

If we determine that we hold a variable interest in a VIE and we are the primary beneficiary of the VIE, we must consolidate the VIE in our financial statements. In determining whether we are the primary beneficiary of a VIE, we consider qualitative and quantitative factors, including, but not limited to: which activities most significantly impact the VIE's economic performance and which party controls such activities; the amount and characteristics of our investment; the obligation or likelihood for us or other investors to provide financial support; and the similarity with and significance to our business activities and the business activities of the other investors. Significant judgments related to these determinations include estimates about the current and future fair values and performance of these VIE's operations and general market conditions. We determine whether we are the primary beneficiary of a VIE upon our initial involvement with the VIE and reassess our status on an ongoing basis.

Use of Estimates

The preparation of our condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts included in the financial statements and accompanying notes thereto. We base our estimates on assumptions that we believe to be reasonable under the circumstances, the results of which form a basis for making judgments about the carrying value of assets and liabilities that are not readily available from other sources. Actual results could differ materially from those estimatesunder different assumptions or conditions; however, we believe that our estimates are reasonable.

Concentrations of Credit Risk

We grant credit in the normal course of business to customers in the United States. We periodically perform credit analysis and monitor the financial condition of our customers to reduce credit risk.

During the nine months ended September 30, 2021 and 2020,one government client accounted for 11% and 23% of total revenues, respectively. During the three months ended September 30, 2021 and 2020, one government client accounted for 10% and 17% of total revenues, respectively. As of September 30, 2021 and December 31, 2020, two government clients accounted for a total of 14% and 36% of net accounts receivable, respectively.

Foreign Currency Translation

The functional currency of the Company's non-U.S. operations is the local currency. Monetary assets and liabilities denominated in foreign currencies are translated into U.S. dollars at exchange rates prevailing at the balance sheet dates. Non-monetary assets and liabilities are translated at the historical rates in effect when the assets were acquired or obligations incurred. Revenue and expenses are translated into U.S. dollars using the average rates of exchange prevailing during the period. Translation gains or losses are included as a component of accumulated other comprehensive loss in shareholders' equity. Gains and losses resulting from foreign currency transactions are recognized as other income (expense).

Reclassifications

Certain prior year financial statement amounts have been reclassified for consistency with the current year presentation.

Segment Reporting

The Company operates its business as one operating segment. Operating segments are defined as components of an enterprise about which separate financial information is evaluated regularly by the chief operating decision maker, the Company's Chief Executive Officer, in deciding how to allocate resources and assess performance. The Company's chief operating decision maker allocates resources and assesses performance based upon discrete financial information at the consolidated level.

In the following table, we disclose the combined gross balance of our fixed assets, capitalized software, and intangible assets by geographical location (in thousands):

	As of September 30, 2021	As of December 31, 2020
Long-lived assets:		
United States	$ 15,285	$ 9,994
Canada	4,923	5,074
Total	$ 20,208	$ 15,068

Warrant Liabilities

We classify private placement warrants as liabilities. At the end of each reporting period, changes in fair value during the period are recognized within the condensed consolidated statements of operations and comprehensive loss. We will continue to adjust the warrant liability for changes in the fair value until the earlier of a) the exercise or expiration of the warrants or b) the redemption of the warrants, at which time the warrants will be reclassified to additional paid-in capital.

Investment

We hold an equity security in Zoltrain, Inc. (Zoltrain) for which the fair value is not readily determinable. Accordingly, we measure this investment at cost minus impairment, plus or minus changes resulting from observable price changes. When indicators of impairment exist, we estimate the fair value and record an impairment charge if the carrying value of the investment exceeds its estimated fair value. Any impairment charges are recorded in other (expense) income, net, in our consolidated statements of operations. Prior to the quarter ended September 30, 2021, we determined we could exert significant influence over Zoltrain's operations through voting rights and representation on the board of directors and we accounted for our investment in Zoltrain using the equity method of accounting, recording our share in the investee's earnings and losses in the consolidated statement of operations.

Recent Accounting Pronouncements

ASU 2016-02

The Financial Accounting Standards Board, or the FASB, has issued new guidance related to the accounting for leases. The new standard establishes a right-of-use model that requires a lessee to record a right-of-use asset and a lease liability on the balance sheet for all leases with terms longer than 12 months. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the statement of operations. Following our change in fiscal year effective on December 31, 2020, the new standard is effective for us beginning on January 1, 2022 and interim periods thereafter. We have limited assets subject to operating lease and therefore expect the adoption of the new standard to result in the recognition of right of use assets and lease liabilities for any office or vehicle leases in effect at that date, we do not expect a significant impact to our results of operations.

ASU 2016-13

The FASB has issued guidance to introduce a new model for recognizing credit losses on financial instruments based on estimated current expected credit losses, or CECL. Under the new standard, an entity is required to estimate CECL on trade receivables at inception, based on historical information, current conditions, and reasonable and supportable forecasts. Following our change in fiscal year-end effective December 31, 2020, the new guidance is effective for us beginning on January 1, 2023. We are evaluating the impact of adoption of the new standard on our consolidated financial statements.

ASU 2018-15

The FASB has issued guidance to help entities evaluate the accounting for fees paid by a customer in a cloud computing arrangement (hosting arrangement) by providing guidance for determining when the arrangement includes a software license. ASU 2018-15 aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal-use software license). The guidance (i) provides criteria for determining which implementation costs to capitalize as an asset related to the service contract and which costs to expense, (ii) requires an entity (customer) to expense the capitalized implementation costs of a hosting arrangement that is a service contract over the term of the hosting arrangement and (iii) clarifies the presentation requirements for reporting such costs in the entity's financial statements. The guidance is applicable for us for the year ending December 31, 2021. We are evaluating the impact of adoption of the standard on our financial statements, however, do not anticipate a significant impact to our financials as a result of this guidance.

ASU 2020-01

The FASB has issued guidance clarifying the interactions between various standards governing investments in equity securities. The new guidance addresses accounting for the transition into and out of the equity method and measurement of certain purchased options and forward contracts to acquire investments. The standard is effective for us for annual and interim periods beginning on January 1, 2022, with early adoption permitted. Adoption of the standard requires changes to be made prospectively. We do not anticipate a significant impact to our financial statements as a result of this new guidance.

ASU 2021-04

On May 3, 2021, FASB issued ASU 2021-04, Earnings Per Share (Topic 260), Debt—Modifications and Extinguishments (Subtopic 470-50), Compensation—Stock Compensation (Topic 718), and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40): Issuer's Accounting for Certain Modifications or Exchanges of Freestanding Equity-Classified Written Call Options. This new standard provides clarification and reduces diversity in an issuer's accounting for modifications or exchanges of freestanding equity-classified written call options (such as warrants) that remain equity classified after modification or exchange. This standard is effective for fiscal years beginning after December 15, 2021, including interim periods within those fiscal years. Issuers should apply the new standard prospectively to modifications or exchanges occurring after the effective date of the new standard. Early adoption is permitted, including adoption in an interim period. If an issuer elects to early adopt the new standard in an interim period, the guidance should be applied as of the beginning of the fiscal year that includes that interim period. The Company is evaluating this new standard.

ASU 2021-08

In October 2021, the FASB issued ASU 2021-08, Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers, which amends the accounting related to contract assets and liabilities acquired in business combinations. Under current GAAP, an entity generally recognizes assets and liabilities acquired in a business combination, including contract assets and contract liabilities arising from revenue contracts with customers, at fair value on the acquisition date. ASU 2021-08 requires that entities recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with ASC Topic 606, Revenue from Contracts with Customers. ASU 2021-08 is effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years, and should be applied prospectively to businesses combinations occurring on or after the effective date of the amendment. Early adoption is permitted, including adoption in an interim period. The Company is currently evaluating the impact of this new guidance on the consolidated financial statements.

Note 3 – Revenue

Financial Statement Impact of Adopting ASC 606, "Revenue from Contracts with Customers"

On July 1, 2020, we adopted ASC 606 using the modified retrospective transition method and applied this method to all contracts that were not complete as of the date of adoption. The reported results as of September 30, 2021 and December 31, 2020, and three months ended September 30, 2021 in the accompanying consolidated financial statements are presented under ASC 606.

The most significant impacts of this standard relate to the timing of revenue recognition of fixed fees under our contracts, as well as the accounting for costs to obtain contracts. Under ASC 606, revenue recognition for subscription and implementation fees begins on the launch date and is recognized over time through the term of the contract. We then recognized the remaining balance of the fixed fees ratably over the remaining term of the contract. Additionally, under ASC 606, we now defer recognition of expense for sales commissions ("contract costs"). These contract costs are amortized to expense over the expected period of benefit. Before the adoption of ASC 606, we expensed these contract costs as incurred.

Revenue Recognition Policies for the nine months ended September 30, 2020

We derive our revenues primarily from the following sources: software revenues, which are primarily comprised of subscription fees from government and commercial customers accessing our enterprise cloud computing services and from customers paying for additional support beyond the standard support that is included in the basic subscription fees; and consulting services provided to operators interested in integrating our platform into their respective operations, such services include: assessing compliance requirements, monitoring systems and readiness; assisting with the application process; and evaluating the operator's inspection readiness and business plan.

We commence revenue recognition when there is persuasive evidence of an arrangement, the service has been or is being provided to the customer, the collection of the fees is reasonably assured, and the amount of fees to be paid by the customer is fixed or determinable.

Software Revenue

Software revenue consists of subscription revenue, the sale of business intelligence, data analytics and other software related services, as well as sales of solo*TAGs and solo*CODEs to customers by the roll of printed labels or as a digital code that allows customers to directlyprint their packing. When customers activate a solo*TAG or solo*CODE, we receive an activation fee, which is recognized upon activation by the customer. Subscription revenue is recognized ratably over the term of the contract, beginning when access to the applicable software is provided to the customer. We typically invoice customers at the beginning of the term, in multi-year, annual, quarterly, or monthly installments. When a collection of fees occurs in advance of service delivery, revenue recognition is deferred until such services commence. Revenue for implementation fees is recognized ratably over the expected term of the contract, including expected renewals.

We include service level commitments to customers warranting certain levels of uptime reliability and performance and permitting those customers to receive credits if those levels are not met. In addition, customer contracts often include: specific obligations that require us to maintain the availability of the customer’s data through the service and that customer content is secured against unauthorized access or loss, and indemnity provisions whereby we indemnify customers from third-party claims asserted against them that result from our failure to maintain the availability of their content or securing the same from unauthorized access or loss. To date, we have not incurred any material costs as a result of such commitments. Any such credits or payments made to customers under these arrangements are recorded as a reduction of revenue.

Consulting Services Revenue

Consulting services revenue consists of contracts with fixed terms and fee structures based upon the volume and activity or fixed-price contracts for consulting and strategic services. When these services are not combined with subscription revenues as a single unit of account, as discussed below, these revenues are recognized as services are rendered and accepted by the customer.

Other Revenues

Other revenue is derived primarily from point-of-sale hardware and other non-recurring revenue. From time to time we purchase equipment for resale to customers. Such equipment is generally drop-shipped to our customers and we recognize revenue as these products are delivered.

Cost of Revenue

Cost of revenue consists primarily of costs related to providing subscription and other services to our customers, including employee compensation and related expenses for data center operations, customer support and professional services personnel, payments to outside technology service providers, security services, and other tools.

Deferred Revenue

Deferred revenue consists of payments received in advance of revenue recognition from subscription, implementation and consulting services. The deferred revenue balance is influenced by several factors, including seasonality, the compounding effects of renewals, contract duration, and invoice frequency. Deferred revenue that will be recognized during the succeeding twelve-month period is recorded as deferred revenue, which is a current liability on the accompanying consolidated balance sheets.

Revenue Recognition Policies for the three months ended September 30, 2020 and the three and nine months ended September 30, 2021

In accordance with ASC 606, revenue is recognized when a customer obtains the benefit of promised services, in an amount that reflects the consideration the Company expects to be entitled to receive in exchange for those services. In determining the amount of revenue to be recognized, the Company performs the following steps: (i) identification of the contract with a customer; (ii) identification of the promised services in the contract and determination of whether the promised services are performance obligations, including whether they are distinct in the context of the contract; (iii) determination of the transaction price; (iv) allocation of the transaction price to the performance obligations based on estimated selling prices; and (v) recognition of revenue when (or as) the Company satisfies each performance obligation.

Disaggregation of Revenue

The Company derives the majority of its revenue from subscription fees paid for access to and usage of its SaaS solutions for a specified period of time, typically one year. In addition to subscription fees, contracts with customers may include implementation fees for launch assistance and training. Fixed subscription and implementation fees are billed in advance of the subscription term and are due in accordance with contract terms, which generally provide for payment within 30 days. The Company's contracts typically have a one-year term. The Company's contractual arrangements include performance, termination and cancellation provisions, but do not provide for refunds. Customers do not have the contractual right to take possession of the Company's software at any time.

Sales taxes collected from customers and remitted to government authorities are excluded from revenue.

The following table summarizes revenue disaggregation by product for the following periods (in thousands):

	For the Nine Months Ended September 30,	
	2021	2020 (1)
Government	$ 2,366	$ 3,333
Non-government	11,690	6,455
	$ 14,056	$ 9,788

	For the Nine Months Ended September 30,	
	2021	2020 (1)
United States	$ 10,272	$ 8,642
Canada	3,784	1,146
	$ 14,056	$ 9,788

(1) As noted above, prior periods have not been adjusted for the adoption of ASC 606 and are presented in accordance with historical accounting guidance in effect for those periods.

Software. Our software revenue is generated from subscriptions and services related to the use of our commercial software platforms, MJ Platform, Ample, Viridian, and Trellis, our government regulatory platform, Leaf Data Systems, and the sale of business intelligence, data analytics and other software related services. Software contracts are generally quarterly or annual contracts paid monthly, quarterly, or annually in advance of service and cancellable upon 30 or 90 days' notice, although we do have some multi-year commercial software contracts. Leaf Data Systems contracts are generally multi-year contracts payable annually or quarterly in advance of service. Commercial software and Leaf Data Systems contracts generally may only be terminated early for breach of contract as defined in the respective agreements. Amounts that have been invoiced are initially recorded as deferred revenue or contract liabilities. Subscription revenue is recognized on a straight-line basis over the service term of the arrangement beginning on the date that our solution is made available to the customer and ending at the expiration of the subscription term.

Consulting Services. Consulting services revenue is generated by providing solutions for operators in the pre-application of licensures and pre-operational phases of development. These services include application and business plan preparation as they seek licenses to be granted. Consulting projects completed during the pre-application phase generally solidify us as the software vendor of choice for subsequent operational phases once the operator is granted the license. As a result, our consulting revenue is driven as new emerging states pass legislation, and as our client-operators gain licenses. Accordingly, we expect our consulting services to continue to grow as more states emerge with legalization reforms.

Other Revenue. Our other revenue is derived primarily from point-of-sale hardware and other non-recurring revenue.

Contracts with Multiple Performance Obligations

Customers may elect to purchase a subscription to multiple modules, multiple modules with multiple service levels, or, for certain of the Company's solutions. We evaluate such contracts to determine whether the services to be provided are distinct and accordingly should be accounted for as separate performance obligations. If we determine that a contract has multiple performance obligations, the transaction price, which is the total price of the contract, is allocated to each performance obligation based on a relative standalone selling price method. We estimate standalone selling price based on observable prices in past transactions for which the product offering subject to the performance obligation has been sold separately, or by using a residual approach for consulting revenue, whereby we estimate the standalone selling price by reference to the total transaction price less the sum of the observable standalone selling prices of other goods or services promised in the contract. As the performance obligations are satisfied, revenue is recognized as discussed above in the product descriptions.

Transaction Price Allocated to Future Performance Obligation

ASC 606 provides certain practical expedients that limit the required disclosure of the aggregate amount of transaction price that is allocated to performance obligations that have not yet been satisfied. As the Company typically enters into contracts with customers for a twelve-month subscription term, substantially all of its performance obligations that have not yet been satisfied as of September 30, 2021 are part of a contract that has an original expected duration of one year or less. For contracts with an original expected duration of greater than one year, for which the practical expedient does not apply, the aggregate transaction price allocated to the unsatisfied performance obligations was $4.2 million as of September 30, 2020, of which $2.0 million is expected to be recognized as revenue over the next twelve months.

Deferred Revenue

Deferred revenue represents the unearned portion of subscription, implementation, and consulting fees. Deferred revenue is recorded when cash payments are received in advance of performance. Deferred amounts are generally recognized within one year. Deferred revenue is included in the accompanying consolidated balance sheets under total current liabilities.

The following table summarizes deferred revenue activity for the nine months ended September 30, 2021 (in thousands):

	As of December 31, 2020	Net additions	Revenue recognized	As of September 30, 2021
Deferred revenue	$ 844	5,970	(5,906)	$ 908

Of the $14.1 million of revenue recognized in the nine months ended September 30, 2021, $0.9 million was included in deferred revenue at December 31, 2020.

Costs to Obtain Contracts

In accordance with ASC 606, we now capitalize sales commissions that are directly related to obtaining customer contracts and that would not have been incurred if the contract had not been obtained. These costs are included in the accompanying consolidated balance sheets and are classified as Prepaid expenses and other current assets. Deferred contract costs are amortized to sales and marketing expense over the expected period of benefit, which we have determined to be one year based on the estimated customer relationship period.

The following table summarizes deferred contract cost activity for the nine months ended September 30, 2021 (in thousand):

	As of December 31, 2020	Additions	Amortized costs (1)	As of September 30, 2021
Deferred contract costs	$ 228	309	(357)	$ 180

(1) Includes contract costs amortized to sales and marketing expense during the period.

Note 4 – Significant Transactions

Viridian Sciences

On April 1, 2021, we completed the acquisition of Viridian Sciences Inc. (“Viridian”), a cannabis business management software provider that is built on SAP Business One. We acquired Viridian in exchange for 1.0 million shares of our common stock valued at $6.0 million. In addition to the stock consideration, the agreement provides for contingent consideration of up to $1.0 million, payable in additional common stock, if Viridian meets certain revenue criteria. The contingent consideration will be recorded as the estimated fair value on the acquisition date and adjusted to estimated fair value in each subsequent reporting period until settlement.

	Preliminary Fair Value
Shares issued	$ 6,000
Contingent consideration	2
Total preliminary fair value of consideration transferred	$ 6,002

The following table summarizes the preliminary fair values of assets acquired and liabilities assumed as of the date of acquisition (in thousands):

	Preliminary Fair Value
Accounts receivable	556
Prepaid expenses and other current assets	148
Capitalized software	423
Acquired technology	470
Customer relationships	820
Acquired trade name	20
Goodwill	4,915
Accounts payable and accrued expenses	(350)
Deferred revenue	(1,000)
Net assets acquired	$ 6,002

The excess of purchase consideration over the fair value of assets acquired and liabilities assumed was recorded as goodwill, which is primarily attributed to the assembled workforce and expanded market opportunities, for which there is no basis for U.S. income tax purposes. The fair values assigned to identifiable assets acquired and liabilities assumed are based on management’s estimates and assumptions. We expect to finalize the valuation as soon as practicable, but no later than one year from the acquisition date.

The amounts of Viridian's revenue and net income included in our consolidated statement of operations from the acquisition date of April 1, 2021, to September 30, 2021 were $1.9 million and $0.6 million, respectively.

Pro Forma Financial Information

The following unaudited pro forma financial information for the nine months ended September 30, 2021 and the three and nine months ended September 30, 2020 summarizes the combined results of operations for Akerna, Trellis, Solo, Ample and Viridian as though the companies were combined as of January 1, 2019:

	Nine Months Ended September 30, 2021
Revenue	$ 15,064,163
Net loss	$ (14,114,608)

	Three Months Ended September 30, 2020
Revenue	$ 4,986,671
Net loss	$ (3,365,226)

	Nine Months Ended September 30, 2020
Revenue	$ 16,348,997
Net loss	$ (18,014,765)

The pro forma financial information for all periods presented above has been calculated after adjusting the results of Trellis, Ample and Viridian to reflect the business combination accounting effects resulting from these acquisitions, including the amortization expense from acquired intangible assets as though the acquisition occurred as of the beginning of the Company's fiscal year 2019. The Akerna historical condensed consolidated financial statements have been adjusted in the pro forma combined financial statements to give effect to pro forma events that are directly attributable to the business combination and factually supportable. The pro forma financial information is for illustrative and informational purposes only and is not intended to represent or be indicative of what the results of operations would have been had the Ample acquisition taken place at the beginning of the Company's fiscal year 2019.

Special Voting Preferred Stock and Exchangeable Shares

In connection with the Ample acquisition, we entered into agreements with our wholly-owned subsidiary and the Ample shareholder representative that resulted in the issuance of a single share of our special voting preferred stock, for the purpose of ensuring that each Exchangeable Share is substantially the economic and voting equivalent of a share of Akerna common stock, and, following the registration of the Akerna shares issuable upon exchange of the Exchangeable Shares under the Securities Act of 1933, ensuring that each Exchangeable Share is exchangeable on a one-for-one basis for a share of Akerna common stock, subject to certain limitations. As a result of these agreements and the issuance of the special voting preferred stock, each holder of Exchangeable Shares effectively has the ability to cast votes along with holders of Akerna common stock. Additionally, these agreements grant exchange rights to the holders of exchangeable shares upon the event of our liquidation, dissolution or winding up.

The special voting preferred stock has a par value of $0.0001 per share and a preference in liquidation of $1.00. The special voting preferred stock entitles the holder to an aggregate number of votes equal to the number of the exchangeable shares issued and outstanding from time to time and which we do not own. The holder of the special voting preferred stock and the holders of shares of Akerna common stock will both together as a single class on all matters submitted to a vote of our shareholders. At such time as the special voting preferred stock has no votes attached to it, the share shall be automatically cancelled. The exchangeable shares do not have a par value.

During the nine months ended September 30, 2021, several Ample shareholders exchanged a total of 2,281,402 exchangeable shares with a value of $17,452,726 for the same number of shares of Akerna common stock. The exchange was accounted for as an equity transaction and we did not recognize a gain or loss on this transaction. As of September 30, 2021, there were a total of 385,947 exchangeable shares issued and outstanding.

Note 5 - Balance Sheet Disclosures

Prepaid expenses and other current assets consisted of the following:

	As of September 30, 2021	As of December 31, 2020
Software and technology	$ 461,555	$ 480,651
Professional services, dues and subscriptions	803,861	826,195
Insurance	415,630	243,222
Deferred contract costs	179,928	227,718
Unbilled receivables	265,155	612,446
Other	68,092	68,495
Total prepaid expenses and other current assets	$ 2,194,221	$ 2,458,727

Accounts payable and accrued liabilities consisted of the following:

	As of September 30, 2021	As of December 31, 2020
Accounts payable	$ 1,808,867	$ 513,610
Professional fees	441,211	333,709
Sales taxes	253,326	216,367
Compensation	404,906	311,379
Contractors	616,502	1,281,857
Other	1,660,707	531,654
Total accounts payable and accrued liabilities	$ 5,185,519	$ 3,188,576

Note 6 - Fair Value

Fair Value Option Election – Convertible Notes

We issued Convertible Notes with a principal amount of $17.0 million at a purchase price of $15.0 million on June 9, 2020. We have elected to account for the Convertible Notes using the fair value option. Under the fair value option, the financial liability is initially measured at its issue-date estimated fair value and subsequently remeasured at its estimated fair value on a recurring basis at each reporting period date. The change in estimated fair value resulting from changes in instrument-specific credit risk is recorded in other comprehensive income as a component of equity. The remaining estimated fair value adjustment is presented as a single line item within other (expense) income in our condensed consolidated statement of operations under the caption, change in fair value of convertible notes.

For the Convertible Notes, which are measured at fair value categorized within Level3 of the fair value hierarchy, the following is a reconciliation of the fair values for the three and nine months ended September 30, 2021 and September 30, 2020:

	Three Months Ended September 30,	
	2021	2020
Fair value balance at beginning of period	$ 6,152,000	$ 14,131,000
Payments on Convertible Notes	(2,344,226)	—
Change in fair value reported in the statements of operations	23,227	(778,000)
Change in fair value reported in other comprehensive loss	3,000	70,000
Fair value balance at end of period	$ 3,834,001	$ 13,423,000

	Nine Months Ended September 30,	
	2021	2020
Fair value balance at beginning of period or issue date (June 9, 2020)	$ 13,398,000	$ 14,960,000
Payments on Convertible Notes	(11,613,903)	—
Change in fair value reported in the statements of operations	2,030,904	(1,544,000)
Change in fair value reported in other comprehensive loss	19,000	7,000
Fair value balance at end of period	$ 3,834,001	$ 13,423,000

The estimated fair value of the Convertible Notes as of September 30, 2021 and December 31, 2020, was computed using a Monte Carlo simulation, which incorporates significant inputs that are not observable in the market, and thus represents a Level 3 measurement as defined by GAAP. The unobservable inputs utilized for measuring the fair value of the Convertible Notes reflect our assumptions about the assumptions that market participants would use in valuing the Convertible Notes as of the issuance date and subsequent reporting period.

We estimated the fair value by using the following key inputs to the Monte Carlo Simulation Model:

Fair Value Assumptions - Convertible Notes	September 30, 2021	December 31, 2020
Face value principal payable (in thousands)	$ 3,558,824	$ 15,172,272
Original conversion price	$ 11.50	$ 11.50
Value of Common Stock	$ 2.82	$ 3.24
Expected term (years)	0.1	2.3
Volatility	99 %	77 %
Market yield	25.1 %	27.1% to 27.2 %
Risk free rate	0.1 %	0.1 %

Fair Value Measurement – Warrants

In connection with MTech Acquisition Corp.'s ("MTech") initial public offering, MTech sold 5,750,000 units at a purchase price of $10.00 per unit, inclusive of 750,000 units sold to the underwriters on February 8, 2018, upon the underwriters' election to fully exercise their over-allotment option. Each unit consisted of one share of MTech's common stock and one warrant of MTech ("MTech Public Warrant"). Each MTech Public Warrant entitled the holder to purchase one share of MTech's common stock at an exercise price of $11.50. Concurrently with MTech's initial public offering, MTech sold 243,750 units at a purchase price of $10.00 per unit on a private offering basis. Each unit consisted of one share of MTech's common stock and one warrant of MTech ("MTech Private Warrant"). Each MTech Private Warrant entitled the holder to purchase one share of MTech's common stock at an exercise price of $11.50.

Upon completion of the mergers between MTech and MJF on June 17, 2019, as contemplated by the Merger Agreement dated October 10, 2018, as amended ("Mergers"), the MTech Public Warrants and the MTech Private Warrants were converted, respectively, at an exchange ratio of one-for-one to a warrant to purchase one share of Akerna's common stock with identical terms and conditions as the MTech Public Warrants ("Public Warrant") and the MTech Private Warrants ("Private Warrant", collectively with the Public Warrants, "Warrants") In connection with the completion of the Mergers, we also issued 189,365 common stock purchase warrants upon the cashless exercise of a unit purchase option, which warrants have identical terms to the Public Warrants and are included in references to Public Warrants and Warrants herein.

For the Private Warrants classified as derivative liabilities, which are measured at fair value categorized within Level 3 of the fair value hierarchy, the following is a reconciliation of the fair values for the three and nine months ended September 30, 2021 and September 30, 2020:

	Three Months Ended September 30,	
	2021	2020
Fair value balance at beginning of period	$ 354,247	$ 1,058,228
Change in fair value reported in the statements of operations	(194,046)	(762,646)
Fair value balance at end of period	$ 160,201	$ 295,582

	Nine Months Ended September 30,	
	2021	2020
Fair value balance at beginning of period	$ 311,376	$ 688,187
Change in fair value reported in the statements of operations	(151,175)	(392,605)
Fair value balance at end of period	$ 160,201	$ 295,582

We utilized a binomial lattice model, which incorporates significant inputs, specifically the expected volatility, that are not observable in the market, and thus represents a Level 3 measurement as defined in GAAP. The unobservable inputs utilized for measuring the fair value of the Private Warrants reflect our estimates regarding the assumptions that market participants would use in valuing the Warrants as of the end of the reporting periods.

We record the fair value of the Private Warrants in the consolidated balance sheets under the caption "derivative liability" and recognize changes to the liability against earnings or loss each reporting period. Upon exercise of the Private Warrants, holders will receive a delivery of Akerna shares on a net or gross share basis per the terms of the Private Warrants and any exercise will reclassify the Private Warrants, at the time of exercise, to shareholder's equity to reflect the equity transaction. There are no periodic settlements prior to the holder exercising the Private Warrants. There were no transfers in or out of Level 3 from other levels for the fair value hierarchy.

We estimated the fair value by using the following key inputs:

Fair Value Assumptions - Private Warrants	**September 30, 2021**	**December 31, 2020**
Number of Private Warrants	225,635	225,635
Original conversion price	$ 11.50	$ 11.50
Value of Common Stock	$ 2.82	$ 3.24
Expected term (years)	2.71	3.46
Volatility	92.9 %	102.3 %
Risk free rate	0.5 %	0.2 %

Note 7 - Commitments and Contingencies

Litigation

On December 4, 2020, TechMagic USA LLC filed suit against our wholly-owned subsidiary, Solo, in Massachusetts Superior Court, Department Business Litigation, seeking recovery of up to approximately $1.07 million for unpaid invoices pursuant to a Master Services Agreement dated February 5, 2018 by and between TechMagic and Solo. The invoices set forth services that TechMagic USA LLC purports to have provided to Solo regarding development of mobile software applications for MJF and Solo between March and November 2020 totaling approximately $787,000. The suit seeks continued fees under the Master Services Agreement through the end of January 2021. Akerna provided a notice of termination of the Master Services Agreement on November 23, 2020 and the parties dispute the effective date of the termination. Solo disputes the validity of the invoices, in whole or in part, and intends to defend the suit vigorously. Mr. Ashesh Shah, formerly the president of Solo and currently the holder of less than 5% of our issued and outstanding shares of common stock is, to our knowledge, the founder and one of the principal managers of TechMagic USA LLC. As of September 30, 2021 and December 31, 2020, we recognized a loss contingency of $0.6 million.

On April 2, 2021, TreCom Systems Group, Inc. ("TreCom") filed suit against Akerna and our wholly-owned subsidiary, MJ Freeway, LLC, in federal District Court for the Eastern District of Pennsylvania, seeking recovery of up to approximately $2 million for services allegedly provided pursuant to a Subcontractor Agreement between MJ Freeway and TreCom. MJ Freeway provided a notice of termination of the operative Subcontractor Agreement on August 4, 2020. MJ Freeway disputes the validity of TreCom's invoices and the enforceability of the alleged agreement that TreCom submitted to the court. Akerna filed counterclaims against TreCom for breach of contract, a declaratory judgment, commercial disparagement, and defamation. TreCom failed to return Akerna's intellectual property and issued numerous disparaging statements to one of Akerna's clients. TreCom subsequently filed a motion to dismiss these counterclaims, which was denied by the court. Akerna intends to vigorously defend against TreCom's claims, and pursue its own claims. As of September 30, 2021, we recognized a loss contingency of $0.1 million.

On May 21, 2021, our wholly-owned subsidiary, Solo, filed suit against two of Solo's former directors, Ashesh Shah and Palle Pedersen. Solo seeks recovery for Mr. Shah's intentional interference with contractual relations, and the defendants' breaches of various fiduciary duties owed to Solo. Defendant Shah engaged in improper communications with Solo's customers with the intent that those customers cease their contractual relations with Solo. The defendants also entered into an improper contract with a contractual counter party that the defendants had a conflict of interest with. The defendants have not asserted any counterclaims, and we therefore have not recognized a loss contingency.

From time to time, we may be involved in litigation relating to claims arising out of our operations in the normal course of business. We will accrue a liability for such matters when it is probable that a liability has been incurred and the amount can be reasonably estimated. When only a range of possible loss can be established, the most probable amount in the range is accrued. If no amount within this range is a better estimate than any other amount within the range, the minimum amount in the range is accrued. The accrual for a litigation loss contingency might include, for example, estimates of potential damages, outside legal fees and other directly related costs expected to be incurred. As of September 30, 2021, and through the date these financial statements were issued, there were no other legal proceedings requiring recognition or disclosure in the financial statements.

Note 8 – Long Term Debt

On March 27, 2020, former President Trump signed the CoronavirusAid, Relief and Economic Security (the “CARES Act”), which, among other things, outlined the provisions of the Paycheck Protection Program (the “PPP”). On April 24, 2020, the Paycheck Protection Program and Health Care Enhancement Act, was signed into law increasing funding provided by the CARES Act and on June 5, 2020, the Paycheck Protection Program Flexibility Act extended the program until December 31, 2020. Under the terms of the CARES Act, PPP loan recipients can apply for and be granted forgiveness for all, or a portion of loan granted under the program. Such forgiveness will be determined, subject to limitations, based on the use of loan proceeds for payment of payroll costs and any payments of mortgage interest, rent, and utilities.

On April 21, 2020, the Company issued a promissory note to KeyBank National Association (“KeyBank”) in the principal aggregate amount of $2,204,600 (the “PPP Loan”) pursuant to the Paycheck Protection Program under the CARES Act. The PPP Loan had a two-year term bearing interest at a rate of1% per annum with principal and interest payments of $92,818 to be paid monthly on the 12th of the month beginning 7 months from the date of the PPP Loan.The PPP Loan provides for prepayment of 20% or less of the unpaid principal balance at any time. If more than 20% is prepaid, then all accrued interest must also be paid.

In August 2021, the Company submitted its application for 100% loan forgiveness and on September 3, 2021, the loan was100% forgiven by the Small Business Administration. As a result, the Company recorded a gain on the forgiveness of the loan in the amount of $2,234,730.

Note 9 – Revisions of Previously Issued Financial Statements

On June 17, 2019, we completed the Mergers with MTech. Prior to the Mergers, MTech was a special purpose acquisition company and had completed an initial public offering in October 2018, which included the issuances of the MTech Private Warrants in a simultaneous private placement transaction. The MTech Private Warrants were exchanged for our Private Warrants as part of the Mergers and our Private Warrants remain outstanding as of September 30, 2021. We previously accounted for these outstanding Private Warrants as components of equity rather than as derivative liabilities. In light of the Staff Statement on Accounting and Reporting Considerations for Warrants Issued by Special Purpose Acquisition Companies (“SPACs”) issued by the staff of the SEC on April 12, 2021 (the “SEC Staff Statement”), the Company’s management further evaluated our outstanding warrants under Accounting Standards Codification 815-40, Contracts in Entity’s Own Equity (“ASC 815-40”), which addresses equity versus liability treatment and classification of equity-linked financial instruments, including warrants, and states that a warrant may be classified as a component of equity only if, among other things, the warrant is indexed to the issuer’s common stock.

Based on management’s evaluation and in consultation with the Audit Committee, we concluded that the Company’s Private Warrants are not indexed to the Company’s common stock in the manner contemplated by ASC Section 815-40. As a result, these warrants are precluded from equity classification and should be recorded as derivative liabilities remeasured to fair value at each reporting period. We assessed the materiality of these errors on prior periods’ financial statements and concluded that the errors were not material to any prior annual or interim periods. However, we are revising the prior periods’ financial statements when they are next issued in these condensed consolidated financial statements and we are reclassifying the Private Warrants as derivative liabilities measured at their estimated fair values at the end of each reporting period and recognizing changes in the estimated fair value of the derivative instruments from the prior period in the Company’s operating results for the current period. See Item. 4 of Part I, Controls, and Procedures.

The Company's change in accounting for the Private Warrants from components of equity to derivative liabilities has no impact on the Company's current or previously reported cash position.

The tables below disclose the effects on the financial statements included in this Quarterly Report on Form 10-Q and the financial statements yet to be reissued:

	Three Months Ended September 30, 2020		
	As reported	Adjustment	As revised
Consolidated Statements of Operations			
Change in fair value of derivative liability	$ —	$ 762,646	$ 762,646
Net loss attributable to Akerna shareholders	(4,741,876)	762,646	(3,979,230)
Net loss per share	(0.28)	—	(0.28)

	Six Months Ended December 31, 2020		
	As reported	Adjustment	As revised
Consolidated Statements of Operations			
Change in fair value of derivative liability	$ —	$ 746,852	$ 746,852
Net loss attributable to Akerna shareholders	(16,957,334)	746,852	(16,210,482)
Net loss per share	(1.01)	—	(1.01)

	As of December 31, 2020		
	As reported	Adjustment	As revised
Consolidated Balance Sheet			
Derivative liability	$ —	$ (311,376))	$ (311,376)
Total liabilities	(19,635,076)	(311,376)	(19,946,452)
Additional paid-in capital	95,090,883	(1,004,450)	94,086,433
Accumulated deficit	(57,872,599)	693,074	(57,179,525)

Note 10 - Loss Per Share

During the three and nine months ended September 30, 2021 and 2020, we used the two-class method to compute net loss per share because we issued securities other than common stock that is economically equivalent to a common share in that the class of stock has the right to participate in dividends should a dividend be declared payable to holders of Akerna common stock. These participating securities were the Exchangeable Shares issued by our wholly owned subsidiary in exchange for interest in Ample. The two-class method requires earnings for the period to be allocated between common stock and participating securities based on their respective rights to receive distributed and undistributed earnings. Under the two-class method, for periods with net income, basic net income per common share is computed by dividing the net income attributable to common stockholders by the weighted average number of shares of common stock outstanding during the period. Net income attributable to common stockholders is computed by subtracting from net income the portion of current period earnings that the participating securities would have been entitled to receive pursuant to their dividend rights had all of the period's earnings been distributed. No such adjustment to earnings is made during periods with a net loss, as the holders of the Exchangeable Shares have no obligation to fund losses.

Diluted net loss per common share is calculated under the two-class method by giving effect to all potentially dilutive common stock, including warrants, restricted stock awards, restricted stock units, and shares of common stock issuable upon conversion of our Convertible Notes. We analyzed the potential dilutive effect of any outstanding convertible securities under the "if-converted" method, in which it is assumed that the outstanding Exchangeable Shares and Convertible Notes are converted to shares of common stock at the beginning of the period or date of issuance, if later. We report the more dilutive of the approaches (two-class or "if-converted") as the diluted net loss per share during the period. The dilutive effect of unvested restricted stock awards and restricted stock units is reflected in diluted loss per share by application of the treasury stock method and is excluded when the effect would be anti-dilutive.

The weighted-average number of shares outstanding used in the computation of diluted earnings per share does not include the effect of potential outstanding common shares that would have been anti-dilutive for the period.

The table below details potentially outstanding shares on a fully diluted basis that were not included in the calculation of diluted earnings per share:

	As of September 30,	
	2021	**2020**
Shares issuable upon exchange of Exchangeable Shares	385,947	2,667,349
Shares of common stock issuable upon conversion of Convertible Notes	1,278,421	1,542,632
Warrants	5,813,804	5,813,804
Unvested restricted stock units	859,860	824,143
Unvested restricted stock awards	32,394	64,296
Total	8,370,426	10,912,224

Note 11 - Subsequent Events

365 Cannabis Acquisition

On October 1, 2021, Akerna acquired The Nav People, Inc. d.b.a. 365 Cannabis ("365 Cannabis"), a cannabis ERP and business management software system built on Microsoft Dynamics 365 Business Central, in a $17.0 million deal comprised of $5.0 million in cash and $12.0 million in stock.

Because the acquisition occurred after September 30, 2021, no results of operations of 365 Cannabis are included in our condensed consolidated statements of operations for the three and nine months ended September 30, 2021. It is currently impractical to disclose a preliminary purchase price allocation or pro forma financial information combining both companies as of the earliest period presented in these financial statements, as 365 Cannabis is currently in the process of closing their books and records.

Senior Convertible Note Financing

On October 5, 2021, Akerna entered into a securities purchase agreement with the two institutional investors that held the Company's convertible notes issued in June of 2020 (the "2020 Notes") to sell senior secured notes in a private placement (the "Senior Convertible Notes"). The Senior Convertible Notes have an aggregate principal amount of $20,000,000, an aggregate original issue discount of 10%, and rank senior to all our other outstanding and future indebtedness. Approximately $3.3 million of the proceeds from the Senior Convertible Notes were used to payoff the 2020 Notes, which were then to be cancelled. The net proceeds from the issuance of the Senior Convertible Notes was approximately $14.6 million, following the original issue discount and deductions for expenses and paydown of the 2020 Notes. These net proceeds will be used to support Akerna's ongoing growth initiatives and continued investment in current and future technology infrastructure. The Senior Convertible Notes are convertible into shares of common stock of Akerna at a conversion price of $4.05 per share. The Senior Convertible Notes mature on October 5, 2024 and are to be repaid in monthly installments beginning on January 1, 2022. The Senior Convertible Notes can be repaid in common shares or cash.

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

The following discussion and analysis should be read in conjunction with our unaudited condensed consolidated financial statements for the three and nine months ended September 30, 2021, and the related notes thereto, which have been prepared in accordance with generally accepted accounting principles in the United States.

Forward-Looking Statements

This Quarterly Report on Form 10-Q including all exhibits hereto contain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of *1995*, including statements regarding future events or our future results of operations, financial condition, business, strategies, financial needs, and the plans and objectives of management. In some cases, forward-looking statements can be identified because they contain words such as "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "might," "likely," "plan," "potential," "predict," "project," "seek," "should," "target," "will," "would," or similar expressions and the negatives of those terms. Forward-looking statements are based on information available to our management as of the date of this Quarterly Report and our management's good faith belief as of such date with respect to future events and are subject to a number of risks, uncertainties, and assumptions that could cause actual performance or results to differ materially from those expressed in or suggested by the forward-looking statements, in particular the substantial risks and uncertainties related to the ongoing COVID-*19* pandemic. Important factors that could cause such differences include, but are not limited to:

- our ability to sustain our revenue growth rate, to achieve or maintain profitability, and to effectively manage our anticipated growth;
- our short operating history makes it difficult to evaluate our business and future prospects;
- our dependence on the commercial success of our clients, the continued growth of the cannabis industry and the regulatory environment in which the cannabis industry operates
- our ability to attract new clients on a cost-effective basis and the extent to which existing clients renew and upgrade their subscriptions;
- the timing of our introduction of new solutions or updates to existing solutions;
- our ability to successfully diversify our solutions by developing or introducing new solutions or acquiring and integrating additional businesses, products, services, or content;
- our ability to respond to changes within the cannabis industry;
- the effects of adverse changes in, or the enforcement of, federal laws regarding our clients' cannabis operations or our receipt of proceeds from such operations;
- our ability to manage unique risks and uncertainties related to government contracts;
- our ability to manage and protect our information technology systems;
- our ability to maintain and expand our strategic relationships with third parties;
- our ability to deliver our solutions to clients without disruption or delay;
- our exposure to liability from errors, delays, fraud, or system failures, which may not be covered by insurance;
- our ability to expand our international reach;
- our ability to retain or recruit officers, key employees, and directors;
- our ability to raise additional capital or obtain financing in the future;
- our ability to successfully integrate acquired businesses with Akerna's business within anticipated timelines and at their expected costs;
- our ability to complete planned acquisitions on time or at all due to failure to obtain stockholder approval or governmental or regulatory clearances, or the failure to satisfy other conditions to completion, or the failure of completion for any other reason;
- our response to adverse developments in the general market, business, economic, labor, regulatory, and political conditions, including worldwide demand for cannabis and the spot price and long-term contract price of cannabis;
- our response to competitive risks;
- our ability to protect our intellectual property;
- the market reaction to negative publicity regarding cannabis;
- our ability to manage the requirements of being a public company;
- our ability to service our convertible debt;
- our accounting treatment of certain of our private warrants;
- our ability to effectively manage any disruptions to our business and/or any negative impact to our financial performance caused by the economic and social effects of the COVID-19 pandemic and measures taken in response; and
- other factors discussed in other sections of this Quarterly Report on Form 10-Q, including the sections of this report titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and under Part II, Item 1A. "Risk Factors" and in our Annual Report on Form 10-K as filed with the Securities and Exchange Commission, or the SEC, on March 31, 2021, under Part I, Item 1A, "Risk Factors."

Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those anticipated, believed, estimated, or expected. We caution readers not to place undue reliance on any such forward-looking statements, which speak only as of the date made. We disclaim any obligation to revise subsequently any forward-looking statements to reflect events or circumstances after the date of such statements or to reflect the occurrence of anticipated or unanticipated events. We qualify all the forward-looking statements contained in this Quarterly Report by the foregoing cautionary statements.

Business Overview

Akerna is a leading provider of enterprise software solutions within the cannabis industry. Cannabis businesses face significant complexity due to the stringent regulations and restrictions that shift based on regional, state, and national governing bodies. As the first to market more than ten years ago, Akerna's family of software platforms enable regulatory compliance and inventory management across the entire supply chain. When the legal cannabis market started to grow, we identified a need for organic material tracking and regulatory compliance software as a service (SaaS) solution customized specifically for the unique needs of the industry. By providing an integrated ecosystem of applications and services that enables compliance, regulation, consumer safety and taxation, Akerna is building the technology backbone of the cannabis industry. While designed specifically for the unique needs of the cannabis market, our solutions are adaptable for other industries requiring government regulatory oversight, or where the tracking of organic materials from seed or plant to end products is desired.

Executing upon our expansion strategy, we acquire complementary cannabis brands to grow the scope of Akerna's cannabis ecosystem. Throughout 2019, 2020, and 2021, we integrated five new brands into the Akerna product and service offering. Our first acquisition, solo sciences, was initiated in the fall of 2019, with the full acquisition completed in July 2020. We added Trellis Solutions to our portfolio on April 10, 2020 and finalized the acquisition of Ample Organics on July 7, 2020. Most recently, in April 2021, we completed our acquisition of Viridian Sciences Inc., a cannabis business management software system built on SAP Business One. Through our growing family of companies, Akerna provides highly versatile platforms that equip our clients with a central data management system for tracking regulated products. Our solutions also provide clients with integrated security, transparency, and scalability capabilities, all while maintaining compliance with their governing regulations.

On the commercial side, our products help state-licensed businesses operate in compliance with applicable regional laws. Our integrated ecosystem provides integrations with third-party vendors and add-ons that enhance the capabilities of our commercial software platforms. On the regulatory side, we provide track and trace solutions that allow state governments to monitor compliance of licensed cannabis businesses. To date, our software has helped monitor the compliance of more than $20 billion in legal cannabis. While our software facilitates the success of legal cannabis businesses, we do not handle any cannabis-related material, do not process cannabis sales transactions within the United States, and our revenue is generated from a fixed-fee based subscription model and is not related to the type or amount of sales made by our clients.

We drive revenue growth through the development of our product line, our acquisitions and from continued expansion of the cannabis, hemp, and CBD industry. Businesses across the regulated cannabis industry use our solutions. The brand recognition of our existing products, our ability to provide services in all areas of the seed-to-sale life cycle, and our wealth of relevant experience attracts cultivation, manufacturing, and dispensary clients who are seeking comprehensive business optimization solutions. Our software solutions are designed to be scalable, and while mid-market and smaller customers have historically been our primary target segment, we are focused on extending our customer reach to address the needs of the emerging enterprise level operator. We believe these larger multi-state/multi-vertical operations represent significant long-term future growth opportunities as the cannabis industry continues to consolidate at a rapid rate. The sophistication of our platform accommodates the complexities of both multi-vertical and multi-state business needs, making us critical partners and allowing us to cultivate long-term, successful relationships with our clients.

Our platforms provide licensed businesses with a true enterprise solution for managing their inventory and compliance and allow government regulators to engage in accurate and real-time compliance monitoring. Key capabilities of our technology infrastructure include:

Seed-to-Sale Tracking allows the tracking of products from cultivation, through harvest and processing and manufacturing, to the monitoring of the final sale to the patient or consumer. Our traceability technology captures every step in an individual plant's life, providing visibility into the supply chain from any measurement of finished product dispensed to a patient or customer, back to the plant it came from, and all activity, transportation, and transactions that happen in between. While we do not provide a point-of-sale processing, and never take, own, or handle any product or cash transaction, our platform does record all sales as part of state and jurisdictional compliance Track-and-Trace processes. The data gathered throughout all of these processes is captured, and provides the insights and information needed to run an efficient and streamlined cannabis business. Seed-to-Sale software operates in a complementary relationship with state-mandated Track-and-Trace systems, replicating the reporting functionality and eliminating the need for operators to duplicate their compliance data into two disparate systems. Track-and-Trace systems are designed solely for government regulators to maintain compliance and do not have the sophistication or functionality to provide cannabis business owners with the insights and tools for effective business management. Our seed-to-sale platforms integrate with the state Track-and-Trace compliance system, reporting in the mandated data along the supply chain while also providing business owners with the capabilities to make informed business decisions based on the fully overview of their operations.

Track-and-Trace is the compliance reporting system used by regulatory bodies in most states. In order to adhere to their state-specific compliance regulations, cannabis operators are required to enter specific data points along the supply chain into the state-mandated track-and-trace system. By doing so, regulators can track the movement of cannabis inventory through the full supply chain, even when it moves between facilities or operators. The aggregated view that Track-and-Trace software ensures that the end product being sold has been grown, harvested, processed, transferred and sold compliantly, and provides assurance of safety to consumers.

Single System Integration allows state-licensed clients to manage inventory, customer records, and staff in one tracking system. MJ Platform and Leaf Data Systems platforms can be fully integrated with one another to create a streamlined Seed-to-Sale/Track-and-Trace solution. Additionally, our platforms can also be integrated with systems of numerous third-party suppliers. We have certified integrations with world class accounting solutions, including Sage, SAP and Netsuite.

Anti-Counterfeiting Technology. Solo sciences provides next-generation anti-counterfeiting technology fused with a direct communication system between brands and consumers. The solo sciences mission is to build confidence and establish trust among consumers, while enabling retailers and distributors to close the loop with creators and producers.

Cannabis Market Insights are curated using the anonymized data aggregated through our Seed-to-Sale platform for key industry intelligence. With over $20 billion in cannabis sales tracked over the past 11 years, we have cultivated a substantial legal cannabis dataset across 30+ states and multiple countries. This data provides a detailed overview of key industry trends, giving us the ability to provide banks, investors, researchers, cannabis businesses, and non-cannabis businesses with cannabis market intelligence and comparison data.

Enterprise Resource Planning (ERP) software is a business process management software that manages and integrates a company's financials, manufacturing, inventory, supply chain, operations, commerce, and reporting activities. ERP systems improve an operators efficiency and effectiveness by eliminating disparate systems, consolidating business critical information in a single location, reducing double entry data, and streamlining operations. ERP software solutions built for cannabis operators combine traditional accounting, manufacturing, inventory, and supply chain management with cannabis-specific track and trace and compliance functionality.

Using our years of experience, proprietary databases, and resources to identify trends and predict changes in the cannabis industry we evolve our products and better assist our clients in operating in compliance with the applicable laws of their jurisdictions and capitalizing on commercial opportunities within the applicable regulatory framework, with accuracy, efficiency, and geographic specificity. We have worked with clients and governments across the globe to create customized solutions that fit their specific regulatory and commercially compliant needs. While the majority of our clients are in the United States and Canada, our solutions allow cannabis businesses to operate efficiently in this fast-changing industry and comply with state, local, and federal (in countries such as Canada, Italy, Macedonia, and Colombia). Akerna and our family of companies is well-positioned to provide compliance solutions for the expanding national and international legal cannabis market.

Financial Results of Operations

Revenue

We generate revenue from two primary sources: (1) software and (2) consulting services. Revenue from software comprisedapproximately 91% and 87% of our revenue for the nine months ended September 30, 2021 and 2020, respectively. Revenue from consulting services comprised approximately 7% and 12% of our revenue for nine months ended September 30, 2021 and 2020, respectively.

Software. Our software revenue is generated from subscriptions and services related to the use of our commercial software platforms, MJ Platform, Ample, Trellis and Viridian, our government regulatory platform, Leaf Data Systems, and the sale of business intelligence, data analytics and other software related services. Software contracts are generally quarterly or annual contracts paid monthly, quarterly, or annually in advance of service and cancellable upon 30 or 90 days' notice, although we do have some multi-year commercial software contracts. Leaf Data Systems contracts are generally multi-year contracts payable annually or quarterly in advance of service. Commercial software and Leaf Data Systems contracts generally may only be terminated early for breach of contract as defined in the respective agreements. Amounts that have been invoiced are initially recorded as deferred revenue or contract liabilities. Subscription revenue is recognized on a straight-line basis over the service term of the arrangement beginning on the date that our solution is made available to the customer and ending at the expiration of the subscription term.

Consulting Services. Consulting services revenue is generated by providing solutions for operators in the pre-application of licensures and pre-operational phases of development. These services include application and business plan preparation as they seek licenses to be granted. Consulting projects completed during the pre-application phase generally solidify us as the software vendor of choice for subsequent operational phases once the operator is granted the license. As a result, our consulting revenue is driven as new emerging states pass legislation, and as our client-operators gain licenses. Accordingly, we expect our consulting services to grow over time as more states emerge with legalization reforms.

Other Revenue. Our other revenue is derived primarily from point-of-sale hardware and other non-recurring revenue.

Cost of Revenue and Operating Expenses

Cost of Revenue

Our cost of revenue is derived from direct costs associated with operating our commercial and government regulatory software platforms and providing consulting services. The cost of revenue for our commercial and government regulatory platforms relates primarily to hosting and infrastructure costs and subcontractor expenses incurred in connection with certain government contracts. Consulting cost of revenue relates primarily to our employees' and consultants' salaries and other related compensation expenses. We record the cost of revenue using the direct cost method. This method requires the allocation of direct costs including support services and materials to the cost of revenue.

Product Development Expenses

Our product development expenses include salaries and benefits, nearshore contractor expenses, technology expenses, and other overhead related to the ongoing maintenance of our commercial and government regulatory software platforms and planning for new software development. Product development costs, other than software development expenses qualifying for capitalization, are expensed as incurred. Capitalized software development costs consist primarily of employee-related costs. We devote substantial resources to enhancing and maintaining our technology infrastructure, developing new and enhancing existing solutions, conducting quality assurance testing, and improving our core technology.

Sales and Marketing Expenses

Sales and marketing expense is primarily salaries and related expenses, including commissions, for our sales, marketing, and client service staff. We also categorize payments to partners and marketing programs as sales and marketing expenses. Marketing programs consist of advertising, events, such as trade shows, corporate communications, brand building, and product marketing activities. We plan to continue to invest in marketing and sales by expanding our domestic and international selling and marketing activities, building brand awareness, attracting new clients, and sponsoring additional marketing events. The timing of these marketing events will affect our marketing costs in a particular quarter.

We defer the portion of sales commissions that is considered a cost of obtaining a new contract with a customer in accordance with the revenue recognition standard and amortize these deferred costs over the period of benefit, currently one year. We expense the remaining sales commissions as incurred. The rates at which sales commissions are earned varies depending on a variety of factors, including the nature of the sale (new, renewal, or add-on service offering), the type of service or solution sold, and the sales channel.

General and Administrative Expenses

Our general and administrative expenses include salaries and benefits and other costs of departments serving administrative functions, such as executives, finance and accounting, human resources, public relations and investor relations. In addition, general and administrative expense includes non-personnel costs, such as professional fees and other supporting corporate expenses not allocated to cost of revenue, product and development or sales and marketing.

Total Other (Income) Expense, Net

Total other (income) expense, net consists of interest income on cash and cash equivalents, quarterly remeasurement of the fair value of our convertible notes and derivative liability, foreign currency gains and losses, and other nonoperating gains and losses.

Critical Accounting Policies and Estimates

Our critical accounting policies are disclosed in our Transition Report on Form 10-K for the six-month period ended December 31, 2020. Since the date of the Transition Report, there have been no material changes to our critical accounting policies except for our accounting policies for warrants as disclosed in Note 9 to the condensed consolidated financial statements.

Results of Operations for the Nine Months Ended September 30, 2021 Compared to Nine Months Ended September 30, 2020

The following table highlights the various sources of revenues and expenses for thenine months ended September 30, 2021, as compared to the nine months ended September 30, 2020:

	Nine Months Ended September 30, 2021	Nine Months Ended September 30, 2020	Change Period over Period	
Revenues:				
Software	$ 12,809,841	$ 8,519,635	$ 4,290,206	50%
Consulting	1,135,033	1,156,171	(21,138)	(2)%
Other	111,540	112,381	(841)	(1)%
Total revenue	14,056,414	9,788,187	4,268,227	44%
Cost of revenues	5,339,929	4,954,721	385,208	8%
Gross profit	8,716,485	4,833,466	3,883,019	80%
Gross profit margin	*62%*	*49%*		
Operating expenses:				
Product development:	4,517,836	3,722,551	795,285	21%
Sales and marketing	5,564,519	6,255,371	(690,852)	(11)%
General and administrative	8,306,417	9,053,476	(747,059)	(8)%
Depreciation and amortization	3,605,435	2,387,629	1,217,806	51%
Total operating expenses	21,994,207	21,419,027	575,180	3%
Loss from operations	$ (13,277,722)	$ (16,585,561)	$ 3,307,839	(20)%

Software Revenue

Our total software revenue increased to $12.8 million for the nine months ended September 30, 2021 from $8.5 million for the nine months ended September 30, 2020, for an increase of $4.3 million, or 50%. Software revenue accounted for 91% and 87% of total revenue for the nine months ended September 30, 2021 and 2020, respectively. The increase in software revenue during the nine months ended September 30, 2021 as compared to the nine months ended September 30, 2020 was attributable to revenue generated from our acquisitions of Ample and Viridian in the amounts of $2.1 million and $1.9 million, respectively, as well as an increase of $0.9 million in data revenue. These increases were partially offset by a decrease of $0.5 million in software revenues generated from government clients which totaled $3.0 million and $3.5 million during the nine months ended September 30, 2021 and 2020, respectively.

Consulting Revenue

Our consulting revenue was $1.1 million for the nine months ended September 30, 2021 compared to $1.2 million for the nine months ended September 30, 2020. Consulting revenue was 8% and 12% of total revenue for the nine months ended September 30, 2021 and 2020, respectively. Due to the nature of consulting revenue, our dependence on emerging market activity as well as the ongoing pandemic as a driver of demand, the percentage of consulting revenue over total revenue has varied from period to period depending on whether state legislation has expanded to allow new market entrants or growth of existing market participant operations.

Other Revenue

Other revenue includes retail/resale revenue, which was generated from point-of-sale hardware. Other revenue totaled $0.1 million for the nine months ended September 30, 2021 and 2020 and was approximately 1% of total revenue for the nine months ended September 30, 2021 and 2020.

Cost of Revenue and Gross Profit

Our cost of revenue was $5.3 million, or 38% of total revenue, for the nine months ended September 30, 2021 compared to $5.0 million, or 51% of total revenue, for the nine months ended September 30, 2020. Our gross profit margin improved to 62% for the nine months ended September 30, 2021 from 49% for the nine months ended September 30, 2020. This improvement in gross margin was primarily due operating synergies realized from our acquired assets, our ongoing initiatives to drive operating effectiveness and acquiring additional B2B customers, of which have a higher gross margin.

Operating Expenses

Product development expense was $4.5 million for the nine months ended September 30, 2021, compared to $3.7 million for the nine months ended September 30, 2020, an increase of $0.8 million, or 21%. Product development expense increased primarily due the acquisitions of Ample and Viridian which resulted in a $0.5 million increase in salary-related expenses and a $0.3 million increase in stock compensation expense for the nine months ended September 30, 2021 compared to the same period in the prior year.

Sales and marketing expense was $5.6 million for the nine months ended September 30, 2021, compared to $6.3 million for the nine months ended September 30, 2020, a decrease of $0.7 million, or 11%. Sales and marketing decreased primarily due to a reduction in customer event spend due primarily to cancelling all in-person customer activities and events as a result of the COVID-19 pandemic.

General and administrative expense was $8.3 million for the nine months ended September 30, 2021, compared to $9.1 million for the nine months ended September 30, 2020, a decrease of $0.7 million, or 8%. This decrease was primarily related to a reduction in acquisition related expenses of $2.9 million and transactional costs of $0.8 million, as we completed one acquisition, Viridian, during the nine months ended September 30, 2021 compared to acquisitions of Solo, Trellis, and Ample during 2020. During the nine months ended September 30, 2021, there was also a decrease of $0.4 million in rental expenses which is related to the termination of our office spaces in Denver in December 2020 and Toronto in June 2021, a slight decrease of $0.2 million in salaries and overhead as a direct result of cost-saving measures placed into service during 2020, and bad debt expense also decreased by $0.2 million due to our improvement in the overall quality of our revenue and client portfolio as well as enhancement of our sales and marketing team. Partially offsetting these decreases is a $2.2 million restructuring charge incurred during the nine months ended September 30, 2021 related to a lease settlement agreement for relinquishing office space in Toronto and the related write off of leasehold improvements associated with the lease termination.

Results of Operations for the Three Months Ended September 30, 2021 Compared to Three Months Ended September 30, 2020

The following table highlights the various sources of revenues and expenses for the three months ended September 30, 2021 as compared to the three months ended September 30, 2020:

	Three Months Ended September 30,		Change	
	2021	2020	Period over Period	
Revenues:				
Software	$ 4,557,960	$ 3,323,592	$ 1,234,368	37%
Consulting	551,402	332,587	218,815	66%
Other	26,140	57,825	(31,685)	(55)%
Total revenue	5,135,502	3,714,004	1,421,498	38%
Cost of revenues	1,971,382	1,739,937	231,445	13%
Gross profit	3,164,120	1,974,067	1,190,053	60%
Gross profit margin	*62%*	*53%*		
Operating expenses:				
Product development:	1,566,478	1,758,826	(192,348)	(11)%
Sales and marketing	2,002,461	2,097,502	(95,041)	(5)%
General and administrative	2,077,474	2,470,187	(392,713)	(16)%
Depreciation and amortization	1,238,420	1,171,022	67,398	6%
Total operating expenses	6,884,833	7,497,537	(612,704)	(8)%
Loss from operations	$ (3,720,713)	$ (5,523,470)	$ 1,802,757	(33)%

Software Revenue

Our total software revenue increased to $4.6 million for the three months ended September 30, 2021 from $3.3 million for the three months ended September 30, 2020, for an increase of $1.2 million, or 37%. Software revenue accounted for 89% and 89% of total revenue for the three months ended September 30, 2021 and 2020, respectively. The increase in software revenue during the three months ended September 30, 2021 was primarily attributable to revenue generated from our acquisition, Viridian, in the amount of $0.9 million as well as an increase of $0.4 million in data revenue.

Consulting Revenue

Our consulting revenue was $0.6 million for the three months ended September 30, 2021 compared to $0.3 million for the three months ended September 30, 2020. Consulting revenue was 11% and 9% of total revenue for the three months ended September 30, 2021 and 2020, respectively. Due to the nature of consulting revenue, our dependence on emerging market activity as well as the ongoing pandemic as a driver of demand, the percentage of consulting revenue as a percentage of total revenue has varied from period to period depending on whether state legislation has expanded to allow new market entrants or growth of existing market participant operations.

Other Revenue

Other revenue includes retail/resale revenue, which was generated from point-of-sale hardware. Other revenue was less than $0.1 million for the three months ended September 30, 2021 and 2020 and comprised less than 1% of total revenue for the three months ended September 30, 2021 and less than 2% of total revenue for the three months ended September 30, 2020.

Cost of Revenue and Gross Profit

Our cost of revenue was $2.0 million, or 38% of total revenue, for the three months ended September 30, 2021 compared to $1.7 million, or 47% of total revenue, for the three months ended September 30, 2020. Our gross profit margin improved to 62% for the three months ended September 30, 2021 from 53% for the three months ended September 30, 2020. This improvement in gross margin was primarily due operating synergies realized from our acquired assets, our ongoing initiatives to drive operating effectiveness and acquiring additional B2B customers, of which have a higher gross margin.

Operating Expenses

Product development expense was $1.6 million for the three months ended September 30, 2021, compared to $1.8 million for the three months ended September 30, 2020, a decrease of $0.2 million, or 11%. Product development expense decreased as a result of slightly lower salary expense and reduced usage of third-party contractors associated with software development.

Sales and marketing expense was $2.0 million for the three months ended September 30, 2021, compared to $2.1 million for the three months ended September 30, 2020, a slight decrease of $0.1 million, or 5%. Sales and marketing decreased primarily due to a reduction in customer event spend and third-party consultants due primarily to cancelling all in-person customer activities and events as a result of the COVID-19 pandemic.

General and administrative expense was $2.1 million for the three months ended September 30, 2021, compared to $2.5 million for the three months ended September 30, 2020, a decrease of $0.4 million, or 16%. This decrease is primarily related to a reduction in acquisition related expenses of $0.8 million, as we completed one acquisition, Viridian, during the nine months ended September 30, 2021 compared to acquisitions of Solo, Trellis, and Ample during 2020. During the three months ended September 30, 2021, there was also a decrease of $0.3 million in rental expenses compared to the three months ended September 30, 2020 which is related to the termination of our office spaces in Denver in December 2020 and Toronto in June 2021. These decreases were partially offset by slight increases in franchise and sales and use tax, as well as bad debt expense.

Non-GAAP Financial Measures

In addition to our results determined in accordance with GAAP, we believe the following non-GAAP measures are useful in evaluating our operating performance. We use the following non-GAAP financial information to evaluate our ongoing operations and for internal planning and forecasting purposes. We believe that non-GAAP financial information, when taken collectively, may be helpful to investors because it provides consistency and comparability with past financial performance. However, non-GAAP financial information is presented for supplemental informational purposes only, has limitations as an analytical tool, and should not be considered in isolation or as a substitute for financial information presented in accordance with GAAP.

Investors are cautioned that there are material limitations associated with the use of non-GAAP financial measures as an analytical tool. Other companies, including companies in our industry, may calculate similarly titled non-GAAP measures differently or may use other measures to evaluate their performance, all of which could reduce the usefulness of our non-GAAP financial measures as tools for comparison. We attempt to compensate for these limitations by providing specific information regarding the GAAP items excluded from these non-GAAP financial measures.

Investors are encouraged to review the related GAAP financial measures and the reconciliation of these non-GAAP financial measures to their most directly comparable GAAP financial measures and not rely on any single financial measure to evaluate our business.

EBITDA and Adjusted EBITDA

We believe that EBITDA and Adjusted EBITDA, when considered with the financial statements determined in accordance with GAAP, are helpful to investors in understanding our performance and allows for comparison of our performance and credit strength to our peers. EBITDA and Adjusted EBITDA should not be considered alternatives to net loss as determined in accordance with GAAP as indicators of our performance or liquidity.

We define EBITDA as net loss before interest expense, interest income changes in fair value of convertible notes, provision for income taxes, depreciation and amortization, and changes in fair value of derivative liabilities. We calculate Adjusted EBITDA as EBITDA further adjusted to exclude the effects of the following items for the reasons set forth below:

- stock-based compensation expense, because this represents a non-cash charge and our mix of cash and share-based compensation may differ from other companies, which effects the comparability of results of operations and liquidity;
- cost incurred in connection with business combinations and mergers that are required to be expensed as incurred in accordance with GAAP, because business combination and merger related costs are specific to the complexity and size of the underlying transactions as well as the frequency of our acquisition activity these costs are not reflective of our ongoing operations;
- costs incurred in connection with non-recurring financing, including fees incurred as a direct result of electing the fair value option to account for our debt instruments;
- restructuring charges, which includes costs to terminate a lease and the related writeoff of leasehold improvements and furniture, as we believe these costs are not representative of operating performance;
- gain on forgiveness of PPP loan, as this is a one-time forgiveness of debt that is not recurring across all periods and we believe inclusion of the gain is not representative of operating performance;
- equity in earnings (losses) of investees because our share of the operations of investees is not representative of our own operating performance and may not be monetized for a number of years; and
- changes in the fair value of contingent consideration because these adjustments are not recurring across all periods and we believe these costs are not representative of operating performance.

The reconciliation of net loss to EBITDA and Adjusted EBITDA is as follows:

	Nine Months Ended September 30,	
	2021	2020
Net loss	$ (14,116,401)	$ (14,657,539)
Adjustments:		
Interest expense (income)	1,175,789	(27,751)
Change in fair value of convertible notes	2,030,904	(1,544,000)
Change in fair value of derivative liability	(151,175)	(392,605)
Income tax expense	10,570	30,985
Depreciation and amortization	3,605,435	2,387,629
EBITDA	$ (7,444,878)	$ (14,203,281)
Stock-based compensation expense	1,502,339	1,354,898
Business combination and merger related costs	290,357	3,197,226
Non-recurring financing fees	410,362	1,220,557
Restructuring charges	2,453,776	68,190
Changes in fair value of contingent consideration	—	(1,387,000)
Gain on forgiveness of PPP Loan	(2,234,730)	—
Equity in losses of investee	7,564	5,226
Adjusted EBITDA	$ (5,015,210)	$ (9,744,184)

	Three Months Ended September 30,	
	2021	2020
Net loss	$ (1,553,447)	$ (3,988,045)
Adjustments:		
Interest expense (income)	238,283	3,687
Change in fair value of convertible notes	23,227	(778,000)
Change in fair value of derivative liability	(194,046)	(762,646)
Income tax expense	—	—
Depreciation and amortization	1,238,420	1,171,022
EBITDA	$ (247,563)	$ (4,353,982)
Stock-based compensation expense	477,625	681,419
Business combination and merger related costs	182,631	951,865
Non-recurring financing fees	280,768	43,167
Restructuring charges	—	68,190
Changes in fair value of contingent consideration	—	(389,000)
Gain on forgiveness of PPP Loan	(2,234,730)	—
Equity in losses of investee	—	1,534
Adjusted EBITDA	$ (1,541,269)	$ (2,996,807)

Liquidity and Capital Resources

Since our inception, we have incurred recurring operating losses, used cash from operations, and relied on capital raising transactions to continue ongoing operations. During the three and nine months ended September 30, 2021, we incurred a loss from operations of $3.7 million and $13.3 million, respectively, and for the nine months ended September 30, 2021, we used cash in operations of $5.1 million. As of September 30, 2021, we had cash of $9.6 million, excluding restricted cash, and working capital of $7.7 million. During the September months ended September 30, 2021, the Company incurred a number of one-time, non-recurring expenses of approximately $2.9 million. These expenses include business combination and merger related costs, restructuring charges, and other non-recurring charges.

On July 23, 2021, we entered into an Equity Distribution Agreement with Oppenheimer & Co. Inc. and A.G.P./Alliance Global Partners ("ATM Program"). Pursuant to the terms of the Agreement, we may offer and sell from time to time, up to $25 million of shares of our common stock. As of September 30, 2021, we have raised $1.9 million through the issuance of 556,388 shares through the ATM program. While no assurance can be provided that we will be able to raise further capital under the program, we intend to use the net proceeds from the sale of our shares of common stock, if any, for general corporate purposes, including working capital, marketing, product development, capital expenditures and merger and acquisition activities.

Subsequent to yearend, on October 5, 2021, we entered into a securities purchase agreementwith the two institutional investors that held the Company's convertible notes issued in June of 2020 (the "2020 Notes") to sell senior secured notes in a private placement (the "Senior Convertible Notes"). The Senior Convertible Notes have an aggregate principal amount of $20,000,000, an aggregate original issue discount of 10%, and rank senior to all our other outstanding and future indebtedness. Approximately $3.3 million of the proceeds from the Senior Convertible Notes were used to payoff the2020 Notes, which were then to be cancelled. The net proceeds from the issuance of the Senior Convertible Notes was approximately $14.6 million, following the original issue discount and deductions for expenses and paydown of the 2020 Notes. These net proceeds will be used to support Akerna's ongoing growth initiatives and continued investment in current and future technology infrastructure. The Senior Convertible Notes are convertible into shares of common stock of Akerna at a conversion price of $4.05 per share. The Senior Convertible Notes mature on October 5, 2024 and are to be repaid in monthly installments beginning on January 1, 2022. The Senior Convertible Notes can be repaid in common shares or cash.

After considering all available evidence, we determined that, due to our current positive working capital, our ability to repay our senior secured convertible note with shares of our common stock, the funds raised from the ATM Program and the Senior Convertible Notes, as well as our ongoing initiatives to drive operating effectiveness, that we have sufficient working capital to sustain operations for a period of at least twelve months from the date that our September 30, 2021 financial statements were issued.

In the event the Company requires additional liquidity, the Company believes it can further reduce or defer expenses. More specifically, the Company could implement certain discretionary cost reduction initiatives relating to our spending on employee travel and entertainment, consulting costs and marketing expenses, negotiate deferred salary arrangements, furlough employees or reduce headcount or negotiate extensions of payments of rent and utilities. The Company also believes it has access to capital through future debt or equity offerings and could be successful in renegotiating the maturity dates or conversion option relating to its current outstanding notes payable, although no assurance can be provided that we would be successful in these efforts. Management will continue to evaluate our liquidity and capital resources.

Cash Flows

Our cash and restricted cash balances were $9.6 million as of September 30, 2021. Cash flow information for the nine months ended September 30, 2021 and 2020 is as follows:

	Nine Months Ended September 30,	
	2021	**2020**
Cash (used in) provided by:		
Operating activities	$ (5,077,544)	$ (12,458,367)
Investing activities	(3,365,988)	(8,009,377)
Financing activities	225,856	15,944,043
Effect of change in exchange rates on cash and restricted cash	(5,915)	662
Net decrease in cash and restricted cash	$ (8,223,591)	$ (4,523,039)

Sources and Uses of Cash for the Nine months ended September 30, 2021 and 2020

Net cash used in operating activities decreased to $5.1 million during the nine months ended September 30, 2021, from $12.5million during the nine months ended September 30, 2020, a decrease of $7.3 million. The decrease in cash used in operating activities was primarily due to improvements in cash flows from working capital changes.

Net cash used in investing activities totaled $3.4 million during the nine months ended September 30, 2021, as a result of amounts invested in the development of our software products. Net cash used by investing activities during the nine months ended September 30, 2020, was $8.0 million as a result of acquisitions and investment in software products.

Net cash provided by financing activities totaled $0.2 million during the nine months ended September 30, 2021 and represents proceeds from our ATM program stock offerings of $1.8 million offset by cash pay downs on our convertible debt in the amount of $1.2 million and $0.4 million of cash paid for the value of shares withheld for tax withholdings on restricted stock units that vested. Our net cash provided by financing activities was $15.9 million for the September months ended September 30, 2020 as a result of net proceeds from our convertible debt offering.

Warrant Liability and Financial Statement Revisions

As discussed in Note 9 to the accompanying financial statements, we determined that our Private Warrants, previously recorded in stockholders' equity, were not properly classified as derivative liabilities, which resulted in primarily the overstatement of net losses attributable to Akerna's shareholders for each of the reporting periods identified in that note. We assessed the materiality of these errors on prior periods' financial statements and concluded that the errors were not material to any prior annual or interim periods, but the cumulative adjustments necessary to correct the errors would be material if we recorded the corrections in the period in which the errors were identified. In accordance with GAAP, we are revising the prior periods' financial statements when they are next issued.

As a result of the revisions to prior period financial statements, certain items discussed in "Item 7 Management's Discussion and Analysis of Financial Condition and Results of Operations" in our previously filed Form 10-KT for the six-month transition period ended December 31, 2020 have been revised. Our net loss for the year ended June 30, 2019 was revised from $12,403,215 to $14,419,027. Our net loss for the year ended June 30, 2020 was revised from $15,534,345 to $13,572,311. Our net loss for the six-month period ended December 31, 2020 was revised from $16,957,334 to $16,210,482. In each case, the revision was due solely to the inclusion of the fair value of derivative liability for the Private Warrants. The revisions had no impact on revenue, gross profit, operating expenses or losses from operations.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

Not applicable.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures (as defined in Rule 13a-15(e) or Rule 15d-15(e) under the Securities Exchange Act of 1934, as amended, (the "Exchange Act")) that are designed to ensure that information required to be disclosed in our reports filed pursuant to the Exchange Act is processed, recorded, summarized, and reported within the time periods specified in the Security and Exchange Commission's rules and forms and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

We have evaluated the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) and Rule 15d-15(e) under the Exchange Act) as of September 30, 2021 with the participation, and under the supervision, of our management, including our Chief Executive Officer and Chief Financial Officer. Based upon this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of September 30, 2021, our disclosure controls and procedures were ineffective in ensuring that: (i) information required to be disclosed by us in reports that we file or submit to the SEC under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in applicable rules and forms and (ii) material information required to be disclosed in our reports filed under the Exchange Act is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow for accurate and timely decisions regarding required disclosure.

Material Weaknesses

A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of our financial statements will not be prevented or detected on a timely basis. Pursuant to our management's review of disclosure controls and procedures and internal control over financial reporting, management determined that the following material weaknesses in our internal control over financial reporting and prevented management from determining that our disclosure controls and procedures and internal control over financial reporting were effective as of the end of the period covered by this report:

1) We lacked formally documented system policies and procedures to demonstrate that our system of internal control over financial reporting is designed effectively, including a lack of documentation surrounding our information technology policies and procedures.

2) We lacked documentation necessary to demonstrate the controls in place are operating effectively, including controls related to the enforcement of segregation of duties in key areas of financial reporting.

Remediation Efforts

We have hired additional experienced resources to fill accounting functions and expects to add further resources, including those to assist in evaluating the appropriate accounting for complex financial instruments. In addition, we have identified upgraded IT, accounting and finance systems, which we expect will automate critical control functions and improve operational effectiveness and efficiencies.

We have contracted an outside consultant to assist in the overall evaluation and documentation of the design and operating effectiveness of our internal controls over financial reporting.

We believe these actions will remediate the control weaknesses. However, the weaknesses will not be considered fully remediated until the applicable controls operate for a sufficient period of time for management to test the results for operating effectiveness. Once implemented, we intend to continue periodic testing and reporting of the internal controls to ensure continuity of compliance.

Notwithstanding the material weakness, management has concluded that the consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q present fairly, in all material respects, our financial position, results of operations, and cash flows in conformity with GAAP.

Changes in Internal Control over Financial Reporting

During the most recently completed fiscal quarter, there have been no changes in our internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting, other than the remediation of a previously identified material weakness as discussed below.

Remediation of a Material Weakness in Internal Control over Financial Reporting

We recognize the importance of the control environment as it sets the overall tone for the organization and is the foundation for all other components of internal control. Consequently, we designed and implemented remediation measures to address the material weakness related to our improper evaluation of accounting for complex instruments that was identified during Q2 2021. In light of this material weakness, we contracted an outside consultant to assist in determining the appropriate accounting for complex instruments and have sufficiently enhanced our internal controls and process for accounting for the warrants.

Inherent Limitations on Effectiveness of Controls

Management recognizes that 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 or error, if any, have been detected. These inherent limitations include the realities that judgments in decision making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. 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 our 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 may be subject to legal proceedings arising in the ordinary course of business. Regardless of the outcome of any existing or future litigation, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources, and other factors.

The information required with respect to this item can be found under “Commitments and Contingencies” in Note 7 to our condensed financial statements included elsewhere in this Form 10-Q and is incorporated by reference into this Item 1.

Item 1A. Risk Factors.

Except as set forth below, there have been no material changes to our Risk Factors as disclosed in our Transition Report on Form 10-KT for the year ended December 31, 2020, as filed with the SEC on March 31, 2021.

Certain of our warrants are accounted for as a warrant liability and are recorded at fair value upon issuance with any changes in fair value each period reported in our statement of operations, which may have an adverse effect on the market price of our securities.

We had 225,635 warrants that were issued in private placements that occurred concurrently with the initial public offering of MTech, our successor (the "private warrants"). These private warrants and the shares of Company common stock issuable upon the exercise of the private warrants are exercisable for cash or on a cashless basis, at the holder's option, and are non-redeemable so long as they are held by the initial purchasers or their permitted transferees. If the private warrants are held by someone other than the initial purchasers or their permitted transferees, the private warrants will be redeemable by the Company and exercisable by such holders on the same basis as the warrants included in the units sold in the initial public offering, in which case the 225,635 private warrants could be redeemed by the Company for $2,256.35. Under U.S. GAAP, the Company is required to evaluate contingent exercise provisions of these warrants and then their settlement provisions to determine whether they should be accounted for as a warrant liability or as equity. As a result of the provision that the private warrants, when held by someone other than the initial purchasers or their permitted transferees, will be redeemable by the Company, the requirements for accounting for these warrants as equity are not satisfied. Therefore, the Company is required to account for these private warrants as a warrant liability and record (a) that liability at fair value and (b) any subsequent changes in fair value as of the end of each period for which earnings are reported. The impact of changes in fair value on earnings may have an adverse effect on the market price of our common stock.

We may face additional risks, including regulatory, litigation, stockholder or other actions and negative impacts on our stock price, as a result of the material weakness in our internal control over financial reporting and revisions to our financial statements.

As a result of our material weaknesses in internal control over financial reporting, the change in accounting for certain warrants, and the related revisions to our prior financial statements or that may in the future be raised by the SEC, we face potential additional risks, including regulatory, litigation, stockholder or other actions and negative impacts on our stock price, which may include, among others, claims invoking the federal and state securities laws, contractual claims or other claims arising from the material weakness in our internal control over financial reporting and the preparation of our financial statements. As of the date of this report, we have no knowledge of any such litigation or dispute. However, we can provide no assurance that such litigation or dispute will not arise in the future. Any such litigation or dispute, whether successful or not, could have a material adverse effect on our business, results of operations and financial condition.

The issuance of shares of our common stock pursuant to our Senior Convertible Notes may result in significant dilution to our stockholders.

The conversion of our outstanding Senior Convertible Notes, issued on October 5, 2021, could result in the issuance of a significant number of shares of our common stock. Currently, the $20 million principal amount of Senior Convertible Notes is convertible at a price of $4.05 per share, which would result in the issuance of 4,938,272 shares of our common stock upon the conversion of the Senior Convertible Notes in full. At the option of Akerna, the installment payments on the Senior Convertible Notes can be converted into shares of common stock of Akerna at a price per share equal to the lower of (i) the conversion price then in effect, or (ii) the greater of (x) the floor price of $0.54 and (y) 90% of the lower of (A) the volume-weighted average price of the common stock as of the trading day immediately preceding the applicable date of determination and (B) the quotient of (I) the sum of the volume-weighted average price of the common stock for each of the two (2) trading days with the lowest volume-weighted average price of the common stock during the ten consecutive trading day period ending on and including the trading day immediately prior to the applicable date of determination, divided by (II) two.

Due to the variable nature of the adjustments of installment conversion prices and the formula that sets certain conversion prices of these securities based on a discount to the then-current market price, we could issue up to 37,037,037 shares of common stock upon conversion of the Senior Convertible Notes at the floor price, which may result in significant dilution to our stockholders and could negatively impact the trading price of our common stock.

Our obligations to the holders of our Senior Convertible Notes are secured by a security interest in substantially all of our assets, if we default on those obligations, the Senior Convertible Note holders could foreclose on our assets.

Our obligations under the Senior Convertible Notes, issued on October 5, 2021, and the related transaction documents are secured by a security interest in substantially all of our assets. As a result, if we default on our obligations under such Senior Convertible Notes, the collateral agent on behalf of the holders of the Senior Convertible Notes could foreclose on the security interests and liquidate some or all of our assets, which would harm our business, financial condition and results of operations and could require us to reduce or cease operations and investors may lose all or part of your investment.

Events of default under the Senior Convertible Notes include: (i) the failure of the registration statement to which this prospectus relates (under the registration rights agreement between the Company and the holders) to be filed with the SEC or the failure of the applicable registration statement to be declared effective by the SEC by deadlines set forth in the registration rights agreement; (ii) (x) the effectiveness of the applicable registration statement lapses for any reason or such registration statement is unavailable to any holder of registrable securities and Rule 144 (subject to certain conditions) is not unavailable to any holder of the conversion shares; (iii) suspension of trading of the Company's common stock on a national securities exchange for five days; (iv) uncured conversion failure; (v) failure by the Company to maintain required share allocations for the conversion of the Senior Convertible Notes; (vi) failure by the Company to pay principal when due; (vii) failure of the Company to remove restricted legends from shares issued to a holder upon conversion of the Senior Convertible Notes; (viii) the occurrence of any default under, redemption of or acceleration prior to maturity of at least an aggregate of $50,000 of indebtedness of the Company; (ix) bankruptcy, insolvency, reorganization or liquidation proceedings or other proceedings for the relief of debtors shall be instituted by or against the Company or any subsidiary and not dismissed within 45 days of initiation; (x) the commencement by the Company or any subsidiary of a voluntary case or proceeding under any applicable federal, state or foreign bankruptcy, insolvency, reorganization or other similar law; (xi) the entry by a court of a decree, order, judgment or other similar document in respect of the Company or any subsidiary of a voluntary or involuntary case or proceeding under any applicable federal, state or foreign bankruptcy, insolvency, reorganization or other similar law; (xii) final judgment for the payment of money aggregating in excess of $50,000 are rendered against the Company or any subsidiary of the Company and not bonded or discharged within 30 days; (xiii) failure of the Company or any subsidiary to pay when due any debts in excess of $50,000 due to any third party; (xiv) breaches by the Company or any subsidiary of any representations or warranties in the securities purchase agreement for the Senior Convertible Notes or any document contemplated thereby; (xv) a false or inaccurate certification by the Company that either (A) the "Equity Conditions" (as defined in the Senior Convertible Notes) are satisfied, (B) there has been no "Equity Conditions Failure," (as defined in the Senior Convertible Notes) or (C) as to whether any Event of Default has occurred; (xvi) failure of the Company or any subsidiary to comply with certain of the covenants in the Senior Convertible Notes; (xvii) the occurrence of (A) at any time after the six month anniversary of the issuance date, any current public information failure that remains outstanding for a period of twenty (20) trading days or (B) any restatement of any financial statements of the Company filed with the SEC; (xviii) any material adverse effect occurring; (xix) any provision of any transaction document shall at any time for any reason cease to be valid and binding or enforceable; (xx) any security document shall for any reason (other than pursuant to the express terms thereof or due to any failure or omission of the collateral agent) fail or cease to create a separate valid and perfected and, except to the extent permitted by the terms hereof or thereof, first priority lien; (xxi) any material damage to, or loss, theft or destruction of, any collateral, that is material to the business of the Company or any subsidiary and is not reimbursed by insurance; or (xxii) any Event of Default occurs under any other Senior Convertible Notes.

The holders of the Senior Convertible Notes have certain additional rights upon an event of default under such Senior Convertible Notes, which could harm our business, financial condition, and results of operations and could require us to reduce or cease our operations.

Under the Senior Convertible Notes, the holders have certain rights upon an event of default. Such rights include (i) the remaining principal amount of the Senior Convertible Notes bearing interest at a rate of 15% per annum, (ii) during the event of default the holders of the Senior Convertible Notes will be entitled to convert all or any portion of the Senior Convertible Notes at an alternate conversion price equal to the lower of (i) the conversion price then in effect, and (ii) 80% of the lower of (x) the volume weighted average price of the common stock as of the trading day immediately preceding the applicable date of determination and (y) the quotient of (A) the sum of the volume weighted average price of the common stock for each of the two (2) trading days with the lowest volume weighted average price of the common stock during the ten consecutive trading day period ending and including the trading day immediately prior to the applicable date of determination, divided by (B) two, but not less than the floor price, and (iii) the holder having the right to demand redemption of all or a portion of the Senior Convertible Notes, as described below. At any time after certain notice requirements for an event of default are triggered, a holder of Senior Convertible Notes may require us to redeem all or any portion of the convertible note by delivering written notice. The redemption price will equal the greater of (i) 115% of the outstanding principal of the convertible note to be redeemed and accrued and unpaid interest and unpaid late charges thereon, and (ii) an amount equal to the market value of the shares of the common stock underlying the Senior Convertible Notes, as determined in accordance with the Senior Convertible Notes. Upon the occurrence of certain events of default relating to the bankruptcy of Akerna, whether occurring prior to or following the maturity date, Akerna will be required to immediately redeem the Senior Convertible Notes, in cash, for an amount equal to 115% of the outstanding principal of the Senior Convertible Notes, and accrued and unpaid interest and unpaid late charges thereon, without the requirement for any notice or demand or other action by any holder or any other person or entity. We may not have sufficient funds to settle the redemption price and, as described above, this could trigger rights under the security interest granted to the holders and result in the foreclosure of their security interests and liquidation of some or all of our assets.

The exercise of any of these rights upon an event of default could substantially harm our financial condition, substantially dilute our other shareholders and force us to reduce or cease operations and investors may lose all or part of their investment.

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

From August 13, 2021 through to the date of this report, weissued 282,249 shares of our common stock to the holders of Akerna's convertible notes upon conversion of installment amounts due under the terms of the notes. The shares were issued upon conversion of the installment amounts under the notes to the holders of the notes pursuant to the exemption from the registration requirements of the Securities Act of 1933, as amended (the "Securities Act") provided by Section 3(a)(9) thereof.

During the quarter ended September 30, 2021, the Company did not repurchase any of its Common Shares.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

None.

Item 6. Exhibits

3.1	Amended and Restated Certificate of Incorporation of Akerna Corp. (incorporated by reference to Exhibit 3.1 to Akerna Corp.'s Form 8-K as filed with the Commission on June 21, 2019)
3.2	Amended and Restated Bylaws of Akerna Corp. (incorporated by reference to Exhibit 3.2 to Akerna Corp.'s Form 10-KT as filed with the Commission on March 31, 2021)
31.1	Section 302 Certification of Principal Executive Officer.
31.2	Section 302 Certification of Principal Financial Officer.
32.1	Section 906 Certification of Principal Executive Officer
32.2	Section 906 Certification of Principal Financial Officer.
101	XBRL (Extensible Business Reporting Language). The following materials from Akerna Corp's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2021, tagged in XBRL: (i) condensed consolidated balance sheets; (ii) condensed consolidated statements of operations; (iii) condensed consolidated statements of comprehensive income; (iv) condensed consolidated statements of cash flows; and (v) notes to condensed consolidated financial statements.

SIGNATURES

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

By: /s/ Jessica Billingsley
Jessica Billingsley,
Chief Executive Officer and Director
(Principal Executive Officer)

November 12, 2021

By: /s/ John Fowle
John Fowle,
Chief Financial Officer
(Principal Financial and Accounting Officer)

November 12, 2021

Exhibit 31.1

**CERTIFICATION PURSUANT TO SECTION 302
OF THE SARBANES-OXLEY ACT OF 2002**

I, Jessica Billingsley, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Akerna Corp.

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

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

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

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

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

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

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

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

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

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

Date: November 12, 2021

By: /s/ Jessica Billingsley

Jessica Billingsley,
Chief Executive Officer and Director
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION PURSUANT TO SECTION 302
OF THE SARBANES-OXLEY ACT OF 2002

I, John Fowle, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Akerna Corp.

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

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

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

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

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

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

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

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

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

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

Date: November 12, 2021

By: /s/ John Fowle

John Fowle,
Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 32.1

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

In connection with the Quarterly Report of Akerna Corp. (the "Company") on Form 10-Q for the quarterly period ended September 30, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Quarterly Report"), I, Jessica Billingsley, Chief Executive Officer, do hereby certify, to my knowledge:

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

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

Date: November 12, 2021

By: /s/ Jessica Billingsley

Jessica Billingsley,
Chief Executive Officer and Director
(Principal Executive Officer)

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.2

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

In connection with the Quarterly Report of Akerna Corp. (the "Company") on Form 10-Q for the quarterly period ended September 30, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Quarterly Report"), I, John Fowle, Chief Financial Officer, do hereby certify, to my knowledge:

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

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

Date: November 12, 2021

By: /s/ John Fowle

John Fowle,
Chief Financial Officer
(Principal Financial and Accounting Officer)

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.