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

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2022

or

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

For the transition period from _ to

Commission file number: 0-21121



(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

One Hamden Center, 2319 Whitney Avenue, Suite 3B, Hamden, CT

(Address of principal executive offices)

(203) 859-6800

(Registrant's Telephone Number, Including Area Code)

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, par value \$0.01 per share	TACT	NASDAQ Global Market				

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes 🗆 No 🗵

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes 🗌 No 🗵

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 during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes \boxtimes No \square

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

Large accelerated filer Non-accelerated filer ⊠

Accelerated filer \Box Smaller reporting company Emerging growth company \Box

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 has filed a report on and attestation to its management's assessment of the effectiveness of internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. 🗆

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the Registrant was approximately \$38,300,000 based on the last sale price on June 30, 2022.

(I.R.S. Employer Identification No.)

06-1456680

(Zip Code)

06518

As of February 28, 2023, the number of shares outstanding of the Registrant's common stock, par value \$0.01 par value, was 9,935,827.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's Definitive Proxy Statement related to its 2023 Annual Meeting of Stockholders (the "Proxy Statement") to be filed with the Securities and Exchange Commission within 120 days after the Registrant's fiscal year end of December 31, 2022 are incorporated by reference into Part III of this Annual Report on Form 10-K.

TRANSACT TECHNOLOGIES INCORPORATED

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Smaller Reporting Company—Scaled Disclosure

Pursuant to Item 10(f) of Regulation S K promulgated under the Securities Act of 1933, as amended (the "Securities Act"), as indicated herein, we have elected to comply with certain scaled disclosure requirements applicable to "smaller reporting companies" in this Annual Report on Form 10-K for the year ended December 31, 2022 (this "Form 10-K").

PART I

Forward-Looking Statements

Certain statements included in this Form 10-K may include "forward-looking statements" within the meaning of the U.S. federal securities laws, including the Private Securities Litigation Reform Act of 1995. Forward-looking statements are any statements other than statements of historical fact. Forwardlooking statements represent current views about possible future events and are often identified by the use of forward-looking terminology, such as "may," "will,", "expect," "intend," "estimate," "anticipate," "believe," "project," "plan," "design" or "continue" or the negative thereof or other similar words. Forward-looking statements are subject to certain risks, uncertainties and assumptions. In the event that one or more of such risks or uncertainties materialize, or one or more underlying assumptions prove incorrect, actual results may differ materially from those expressed or implied by the forwardlooking statements.

Important factors and uncertainties that could cause actual results to differ materially from those expressed or implied by the forward-looking statements include, but are not limited to, the following: the adverse effects of current economic conditions, whether due to the COVID-19 pandemic or otherwise on our business, operations, financial condition, results of operations and capital resources, difficulties or delays in manufacturing or delivery of inventory or other supply chain disruptions, inflation and the Russia/Ukraine conflict, an inability of our customers to make payments on time or at all, diversion of management attention, a possible future reduction in the value of goodwill or other intangible assets, inadequate manufacturing capacity or a shortfall or excess of inventory as a result of difficulty in predicting manufacturing requirements due to volatile economic conditions, price increases or decreased availability of component parts or raw materials, exchange rate fluctuations, volatility of, and decreases in, trading prices of our common stock and the availability of needed financing on acceptable terms or at all; our ability to successfully develop new products that garner customer acceptance and generate sales, both domestically and internationally, in the face of substantial competition; our reliance on an unrelated third party to develop, maintain and host certain web-based food service application software and develop and maintain selected components of our downloadable software applications pursuant to a non-exclusive license agreement, and the risk that interruptions in our relationship with that third party could materially impair our ability to provide services to our food service technology customers on a timely basis or at all and could require substantial expenditures to find or develop alternative software products; our ability to successfully transition our business into the food service technology market; risks associated with potential future acquisitions; general economic conditions; our dependence on contract manufacturers for the assembly of a large portion of our products in Asia; our dependence on significant suppliers; our ability to recruit and retain quality employees as the Company grows; our dependence on third parties for sales outside the United States; marketplace acceptance of new products; risks associated with foreign operations; the availability of third party components at reasonable prices; price wars, supply chain disruptions or other significant pricing pressures affecting the Company's products in the United States or abroad; increased product costs or reduced customer demand for our products due to changes in U.S. policy that may result in trade wars or tariffs; our ability to protect intellectual property; and other risk factors identified and discussed in Part I, Item 1A, Risk Factors, and Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, of this Form 10-K and that may be detailed from time to time in the Company's other reports filed with the Securities and Exchange Commission (the "SEC").

We caution readers not to place undue reliance on forward-looking statements, which speak only as of the date of this Form 10-K. We undertake no obligation to publicly or otherwise revise any forward-looking statements, whether as a result of new information, future events or other factors, except where we are expressly required to do so by applicable law.

Item 1. Business.

The Company

TransAct Technologies Incorporated (together with its consolidated subsidiaries, "TransAct," the "Company," "we," "us," or "our") was incorporated in June 1996 and began operating as a stand-alone business in August 1996 as a spin-off of the printer business that was formerly conducted by certain subsidiaries of Tridex Corporation. We completed an initial public offering on August 22, 1996.

TransAct is a global leader in developing and selling software-driven technology and printing solutions for high-growth markets including food service technology, point of sale ("POS") automation and casino and gaming. Our world-class products are designed from the ground up based on market and customer requirements and are sold under the BOHA!TM, AccuDateTM, Epic, EPICENTRAL®, and Ithaca®, brand names. During 2019, we launched a new line of products for the food service technology market, the BOHA! branded suite of cloud-based applications and companion hardware solutions. The BOHA! software and hardware products help restaurants, convenience stores and food service operators of all sizes automate the food production in the back-of-house operations. Known and respected worldwide for innovative designs and real-world service reliability, our thermal printers and terminals generate top-quality labels, coupons and transaction records such as receipts, tickets and other documents. We sell our technology to original equipment manufacturers ("OEMs"), value-added resellers, and select distributors, as well as directly to end users. Our product distribution spans across the Americas, Europe, the Middle East, Africa, Asia, Australia, New Zealand, the Caribbean Islands and the South Pacific. We also offer world-class service, support, labels, spare parts, accessories and printing supplies to our growing worldwide base of products currently in use by our customers. Through our TransAct Services Group ("TSG"), we provide a complete range of supplies and consumables used in the printing activities of customers in the restaurant and hospitality, retail, casino and gaming, and government markets. Through our webstore, www.transactsupplies.com, and our direct selling team, we address the demand for these products. We operate in one reportable segment: the design, development, and marketing of software-driven technology and printing solutions for high growth markets, and provide related services, supplies and spare parts. Our primary operating, hardware research and development, and U.S. service center is located in Ithaca, New York. In addition, we have a casino and gaming sales headquarters and software research and development center in Las Vegas, Nevada; a European sales and service center at our subsidiary in the United Kingdom ("UK"); and a sales office located in Macau, China. Our executive offices are located at One Hamden Center, 2319 Whitney Avenue, Suite 3B, Hamden, Connecticut, 06518, with a telephone number of (203) 859-6800.

Impact of the COVID-19 Pandemic and Global Supply Chain Disruptions

Since early 2020, the COVID-19 pandemic has continued to cause uncertainty and disruption in the global economy and financial markets. We have also been impacted by global supply chain issues, increased shipping costs and inflationary pressures, which have increased our costs and, in some instances, slowed our ability to deliver products to our customers. During 2021, our inventory levels decreased significantly as a result of these supply chain disruptions, and we experienced significantly lower sales levels. However, during 2022 we were able to increase our inventory levels and minimize the impact to our customers by successfully modifying our products that were affected by supply chain disruptions, as well as sourcing component parts from alternate suppliers. Although we were able to increase inventory levels during 2022 and expect to continue to do so in 2023, there can be no assurance that new or continuing supply chain disruptions will not affect our products or that we will be able to make timely modifications to address any future supply chain issues that arise. Further, while we have offset most of our cost increases by increasing prices of our products, there can be no guarantee that we will be able to offset any future cost increases should they arise. After a slowdown in the first quarter of 2022 resulting from the Omicron and other variants of COVID-19, we continue to experience demand recovery during the remainder of 2022. Based on our strong backlog position and continued market share expansion, we expect this recovery to continue into 2023, though the exact timing and pace of recovery may be impacted by global economic conditions.

During 2020 and 2021, our gross margin was negatively impacted by significantly lower sales levels from the economic effects of the COVID-19 pandemic, as well as increased material and shipping costs resulting from worldwide supply chain disruptions continuing into 2022. However, we saw significant improvement in the last nine months of 2022 resulting from significantly higher sales levels and price increases instituted on our products to mitigate higher material and shipping costs. Though we expect this trend to continue into 2023, our gross margin may be negatively impacted by the economic effects of any future cost increases that cannot be predicted, supply chain disruptions, inflationary pressures and potential new COVID-19 variants on the markets we serve.

Although in 2022 we continued to gradually return to more normalized pre-COVID-19 spending levels after implementing a number of cost saving measures in 2020 through 2022, we expect to continue to closely monitor our spending levels as circumstances warrant.

Since the onset of the COVID-19 pandemic, our top priority has been to ensure the health and safety of our employees while continuing to provide our customers with high-quality, personalized service. After instituting work-from-home practices in 2020, we transitioned in 2022 to a more flexible hybrid model to accommodate both our employees and the needs of the business. In addition, even with the transition to a hybrid model, our internal control structure remains operational and unchanged.

Balance Sheet, Cash Flow and Liquidity

We have taken the following actions to increase liquidity and strengthen our financial position in an effort to mitigate the negative impacts from the COVID-19 pandemic, supply chain disruptions and inflationary pressures:

- Public Offerings On August 16, 2021, the Company raised net proceeds of \$11.2 million (including the exercise of the underwriters' overallotment option on August 20, 2021), after deducting underwriting discounts, commissions and offering expenses, through an underwritten public offering and sold an aggregate of 842,375 shares of common stock.
- PPP Loan On May 1, 2020, the Company was granted a \$2.2 million loan (the "PPP Loan") under the Paycheck Protection Program (the "PPP") administered by the Small Business Administration ("SBA") established under Division A, Title I of the Coronavirus Aid, Relief, and Economic Security ("CARES") Act, which enabled us to return employees we furloughed earlier in 2020 to full time employment and to restore employees to full pay following certain pay cuts. On July 8, 2021, we received notice that the PPP Loan had been forgiven as of July 1, 2021. See Note 8 for further details regarding the PPP Loan.
- Employee Retention Credit Under the provisions of the CARES Act, the Company was eligible for a refundable employee retention credit subject to certain criteria. In connection with the CARES Act, the Company recognized the employee retention credit during the fourth quarter of 2021 as a \$1.5 million "Gain from employee retention credit" in the Consolidated Statement of Operations for the year ended December 31, 2021 and recorded a \$1.5 million "Employee retention credit receivable" in the Consolidated Balance Sheets as of December 31, 2022 and December 31, 2021. We received these funds in the first quarter of 2023.
- Credit Facility On March 13, 2020, we entered into a new credit facility with Siena Lending Group LLC that provides a revolving credit line of up to \$10.0 million, subject to a borrowing base and on July 19, 2022, we entered into an amendment to extend the maturity of the facility to March 13, 2025. See Note 8 for further details regarding this facility.
- Reduced Capital Expenditures We limited capital expenditures during 2020 and 2021 and gradually increased expenses during 2022 as our sales improved.

Notwithstanding the foregoing, there is no assurance that the actions we have taken in response to the pandemic, global supply chain disruptions and inflation are sufficient or adequate, and we may be required to take additional preventive or responsive measures, as the ultimate extent of the effects of these risks on the Company, our financial condition, results of operations, liquidity, and cash flows are uncertain and are dependent on evolving developments which cannot be predicted at this time. See Part I, Item 1A, Risk Factors, of this Form 10-K for further discussion of risks related to COVID-19, global supply chain disruptions and inflation.

Products, Services and Distribution Methods

Printers, terminals and other hardware: TransAct designs, develops and markets a broad array of transaction-based and specialty printers and terminals utilizing thermal printing technology for applications, primarily in the food service technology, POS automation, casino and gaming, and prior to exiting the market on December 31, 2021, the oil and gas printing markets. Our printers and terminals are configurable and offer customers the ability to choose from a variety of features and functions. Options typically include interface configuration, mounting configuration, paper cutting devices, paper handling capacities and cabinetry color. Our food service technology terminals also offer software configurable menu options and our food service technology market includes sales of optional hardware products including temperature probes, temperature sensors and gateways.

Food Service Technology ("FST"): Our primary offering in the food service technology market is our line of BOHA! products, which can combine our latest generation terminal and workstation which includes one or two printers and our BOHA! Labeling, timers, and media software. In addition, customers may individually purchase cloud-based software applications that connect to a separate application on a separate mobile device into a solution to automate back-of-house operations in restaurants, convenience stores and food service operations. The additional software offering of BOHA! consists of a variety of individually purchased software-as-a-service ("SaaS")-based applications for both Android and iOS operating systems, including applications for, temperature monitoring, temperature taking and checklists and task lists. These applications are sold separately, and customers purchase the applications they need for their back-of-house operations. Customers may also purchase associated hardware, such as handheld devices, tablets, temperature probes and temperature sensors and gateways. The BOHA! Terminal combines an operating system and hardware components in a device that includes a touchscreen and one or two thermal print mechanisms that print easy-to-read food rotation labels, grab-and-go labels, and nutritional labels for prepared foods, and "enjoy by" date labels. The BOHA! WorkStation uses an iPad or Android tablet instead of an integrated touchscreen. The BOHA! Terminal and the BOHA! WorkStation are equipped with the TransAct Enterprise Management System to ensure that only approved touchscreen functions are available on the touchscreen device and to allow over-the-air updates to the operating system. BOHA! helps food service establishments and restaurants (including fine dining, casual dining, fast casual and quick-service restaurants, convenience stores, hospitality establishments and contract food service providers) effectively manage food safety and grab-and-go initiatives, as well as automate and manage back-of-house operations. Recurring revenue from BOHA! is generated by software sales, including software subscriptions that are typically charged to customers annually on a per-application basis, as well as sales of labels, extended warranty and service contracts, and technical support services. In the food service technology market, we use an internal sales force to solicit sales directly from end users.

POS automation: In the POS market, we sell a printer utilizing thermal printing technology. Our POS printer is used primarily by McDonald's, and to a lesser extent, other quick-service restaurants located either at the checkout counter or within self-service kiosks to print receipts for consumers or print on linerless labels. In the POS market, we primarily sell our products through a network of domestic and international distributors and resellers. We use an internal sales force to manage sales through our distributors and resellers, as well as to solicit sales directly from end-users.

Casino and gaming: We sell several models of printers used in slot machines and video lottery terminals ("VLTs") and other gaming machines that print tickets or receipts instead of issuing coins ("ticket-in, ticket-out" or "TITO") at casinos, racetracks and other gaming venues worldwide. These printers utilize thermal printing technology to print tickets and receipts in monochrome and offer various other features such as jam resistant bezels and a dual port interface that enables casinos to print coupons and promotions. In addition, we sell printers using thermal roll-fed printing technology for use in international non-casino establishments, including game types such as Amusements with Prizes, Skills with Prizes, Fixed Odds Betting Terminals, sports betting establishments and other off-premise gaming type machines around the world. We sell our casino and gaming products primarily (1) to slot machine manufacturers, who incorporate our printers into slot machines and, in turn, sell completed slot machines directly to casinos and other gaming establishments and (2) through distributors. We also maintain a dedicated internal sales force to solicit sales from slot machine manufacturers and casinos, and to manage sales through our distributors.

We also offer a software solution, the EPICENTRAL Print System, including annual software maintenance, that enables casino operators to create promotional coupons and marketing messages and to print them in real time at the slot machine. With EPICENTRAL, casinos can utilize the system to create multiple promotions and incentives to either increase customer time spent on the casino floor or encourage additional visits to generate more revenue to the casinos.

TSG: Through TSG, we proactively market the sale of consumable products (including POS receipt paper, ribbons and other printing supplies), replacement parts, maintenance and repair services, and shipping and handling charges. Our maintenance services include the sale of extended warranties, multi-year maintenance contracts, a 24-hour guaranteed replacement product service called TransAct XpressTM and other repair services for our non-FST products. Within the United States, we provide repair services through our service center in Ithaca, New York. Internationally, we provide repair services through our European service center located in Doncaster, UK, and through partners strategically located around the world.

We also provide customers with telephone sales and technical support, and a personal account representative to handle orders, shipping and general information. Technical and sales support personnel receive training on all our products and services. In addition to personalized telephone and technical support, we also market and sell consumable products 24 hours a day, seven days a week, via our webstore, www.transactsupplies.com.

Sources and Availability of Raw Materials

We design our products to optimize product performance, quality, reliability and durability. These designs combine cost efficient materials, sourcing and assembly methods with high standards of workmanship. Almost all of our printers and terminals are currently produced by a third party manufacturer located in Thailand. A small portion of our products are assembled in our Ithaca, New York facility largely on a configure-to-order basis using components and subassemblies that have been sourced from vendors and contract manufacturers around the world.

We procure component parts and subassemblies for use in the assembly of a small portion of our hardware products in Ithaca, New York. Critical component parts and subassemblies include thermal print heads, printing/cutting mechanisms, power supplies, motors, injection molded plastic parts, LCD screens, circuit boards and electronic components, which are obtained from domestic and foreign suppliers at competitive prices, subject to availability. As a result of the majority of our production being performed by our contract manufacturers, the majority of our purchases consist of fully assembled printers and terminals produced by our contract manufacturers and, to a much lesser extent, component parts. We typically strive to maintain more than one source for our component parts, subassemblies and fully assembled printers and terminals to reduce the risk of parts shortages or unavailability. However, we have experienced and could continue to experience some disruption due to certain suppliers being unable to source specific components and we could experience temporary disruption in the availability of components. In addition, we could experience temporary disruption if certain suppliers ceased doing business with us, as described below.

We currently buy a majority of our thermal print mechanisms, an important component of our thermal printers, and fully assembled printers for substantially all of our printer and food service technology terminal models, from a foreign contract manufacturer in Thailand. We believe that other contract manufacturers could provide similar thermal print mechanisms or fully assembled printers and terminals, on comparable terms. We do not have supply agreements with foreign contract manufacturers, and we believe that our supply of thermal print mechanisms and fully assembled printers will be adequate in 2023 and the foreseeable future.

Patents and Proprietary Information

TransAct relies on a combination of trade secrets, patents, employee and third party nondisclosure agreements, copyright laws and contractual rights to establish and protect its proprietary rights in its products. As of January 31, 2023, we hold 34 United States and 34 foreign patents and have two foreign patent applications pending pertaining to our products. The remaining duration of these patents ranges from one to 17 years. The expiration of any individual patent would not have a significant negative impact on our business. We regard certain manufacturing processes and designs to be proprietary and attempt to protect them through employee and third party nondisclosure agreements and similar means. It may be possible for unauthorized third parties to copy certain portions of our products or to reverse engineer or otherwise obtain and use, to our detriment, information that we regard as proprietary. Moreover, the laws of some foreign countries do not afford the same protection to our proprietary rights as do the laws of the United States. There can be no assurance that legal protections we rely upon to protect our proprietary position will be adequate or that our competitors will not independently develop technologies that are substantially equivalent or superior to our technologies.

Trademarks, Service Marks Trade Names and Copyrights

We own or have rights to trademarks, service marks, trade names and copyrights that we use in connection with the operation of our business, including our corporate names, logos and website names. Other trademarks, service marks and trade names appearing in this Form 10-K are the property of their respective owners. The trademarks we own include TransAct[®], BOHA!TM, AccuDateTM, EPICENTRAL[®], Ithaca[®] and Printrex[®]. Solely for convenience, some of the trademarks, service marks, trade names and copyrights referred to in this Form 10-K are listed without the [©], [®] and TM symbols, but we will assert, to the fullest extent under applicable law, our rights to our trademarks, service marks, trade names and copyrights.

Seasonality

Restaurants typically reduce purchases of equipment in the fourth quarter due to the increased volume of transactions during the holiday period, which may negatively impact sales of our food service technology products or POS printers.

Working Capital

Inventory, accounts receivable, and accounts payable levels, payment terms, and where applicable, return policies are in accordance with the general practices of the industry and standard business procedures. See also Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations of this Form 10-K.

Certain Significant Customers

IGT is our most significant customer, although to a lesser extent than in previous years, and has been since 1995. We sell casino and gaming printers and, prior to 2021, online lottery printers to IGT. On May 29, 2015, we signed an agreement with IGT to sell online lottery and casino printers to IGT on a non-exclusive basis through December 31, 2019. We decided not to renew the agreement upon its expiration and to exit the online lottery market. Although we no longer have an agreement with IGT, we expect to continue selling casino and gaming printers to IGT, as well as spare parts for our remaining, but declining, installed base of lottery printers, in the future.

Sales to IGT represented 10% and 9% of our total net sales for the years ended December 31, 2022 and 2021, respectively.

Backlog

Our backlog of firm orders was approximately \$27.5 million as of February 28, 2023, compared to \$14.2 million as of February 28, 2022. The increase in firm orders as of February 28, 2023 compared to February 28, 2022 is due primarily to advance orders placed by our casino and gaming customers due to increased production lead time, resulting from worldwide supply chain shortages caused by the pandemic. Based on customers' current delivery requirements, we expect to fill and recognize as revenue \$26.9 million of our current backlog during 2023, \$0.5 million during 2024 and the remaining balance of the amount during 2025.

Competition

The market for transaction-based and specialty printers and food service technology terminals is extremely competitive, and we expect such competition to continue in the future. However, we experience less competition for EPICENTRAL software due to the highly customized nature of the product. We compete with a number of companies, many of which have greater financial, technical and marketing resources than TransAct. We believe our ability to compete successfully depends on a number of factors both within and outside our control, including durability, reliability, quality, design capability, product customization, price, customer support, success in developing new products, manufacturing expertise and capacity, supply of component parts and materials, strategic relationships with suppliers, the timing of new product introductions by us and our competitors, general market, economic and political conditions and, in some cases, the uniqueness of our products.

In the food service technology market, we primarily compete with Zenput, Squadle Inc., Jolt Software, Avery Dennison Corporation, Ecolab Inc., ITD Food Safety, CMC Daymark, Integrated Control Corp, Digi International, and Toast. We compete in this market based largely on our ability to provide highly specialized purpose-built hardware products, different software applications that can be chosen by a customer and ongoing technical support. We rely upon third party developed software and hosting services combined with our own proprietary hardware and software to offer a unique BOHA! branded solution to support back-of-house operations in the food service industry. Our competitors or others may develop, or may establish relationships with developers with the capability to develop, software and services that are similar to or competitive with ours, which may be disadvantageous to our competitive position. Certain portions of our food service technology software are licensed from a third party developer on a non-exclusive basis through 2031 and are subject to a revenue sharing arrangement with the developer. We are reliant upon the third party developer to further develop and maintain its developed software, and the developer hosts the web-based applications. Therefore, presently, we are highly dependent upon this third party developer for continued service to our customers and the further development of our food service technology software products.

In the POS automation market, we primarily compete with Epson America, Inc., which holds a dominant market position. We also compete, to a much lesser extent, with Star Micronics America, Inc. and Citizen -- CBM America Corporation. Certain competitors of ours have greater financial resources and lower costs attributable to higher volume production which enables them to occasionally offer lower prices than us.

In the casino and gaming market (consisting principally of slot machine printing, VLT transaction printing and promotional coupon printing), we compete with several companies including JCM Global, Nanoptix, Inc., Custom Engineering SPA, Eurocoin and others. Certain of our products sold for casino and gaming applications compete based upon our ability to provide highly specialized products, custom engineering and ongoing technical support. In 2022, we increased our overall market share due largely to our largest competitor's inability to supply product due to supply chain issues.

In the oil and gas market, our Printrex products competed primarily with the products of Imaging Systems Group, Inc. and Neuralog Inc. However, we exited the oil and gas market at the end of 2021 in order to shift our focus toward our higher-value, technology enabled food service technology and gaming products.

The market in which TSG competes is highly fragmented, and we compete with numerous competitors of various sizes, including POS and internet resellers and paper converters depending on the geographic area.

Our strategy for competing in our markets is to continually develop and/or license new products (hardware and software), such as launching BOHA! in 2019, and product line extensions that are technologically advanced and provide differentiated features and functions, to increase our market penetration, to take advantage of strategic relationships, and to lower the cost of our products by sourcing certain products overseas. Although we believe that our products, operations and relationships provide a competitive foundation, there can be no assurance that we will compete successfully in the future. In addition, our printer products utilize certain thermal printing technologies and licensed software. If new technologies are introduced, or existing technologies evolve, we may be required to incorporate these technologies into our products. Alternatively, if such technologies were to become available to our competitors, our printer products could become obsolete, which could have a significant negative impact on our business.

Environmental Compliance

Our compliance with federal, state and local laws and regulations relating to environmental protection and discharge of hazardous materials has not had a material impact on our capital expenditures, earnings or competitive position, and we do not anticipate any material impact from such compliance in the future.

Available Information

We make available free of charge through the "Investor Relations" tab on our Internet website, www.transact-tech.com, our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, proxy statements and all amendments to those reports and statements as soon as reasonably practicable after such material is electronically filed with or furnished to the SEC pursuant to Sections 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). The SEC maintains an internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC at http://www.sec.gov. The content on any website referred to in this Form 10-K is not incorporated by reference in this Form 10-K unless expressly noted.

Employees

As of December 31, 2022, TransAct and our subsidiaries employed 128 persons, all of whom were full-time employees. None of our employees are unionized, and we consider our relationships with our employees to be good.

Information about our Executive Officers

The following is a list of the names and ages of all executive officers of the registrant, indicating all positions and offices with the registrant held by each such person and each person's principal occupations and employment during at least the past five years.

Name	Age	Position
Bart C. Shuldman	65	Chief Executive Officer
Steven A. DeMartino	53	President, Chief Financial Officer, Treasurer and Secretary
Tracey S. Winslow	63	Chief Revenue Officer
Brent Richtsmeier	58	Chief Technology Officer

Bart C. Shuldman has been Chief Executive Officer and a Director of the Company since its formation in June 1996. Mr. Shuldman served as President of the Company from its formation until June 2010, when he relinquished the President title to focus on new products and markets, international expansion and potential acquisitions. Mr. Shuldman also served as Chairman of the Board from February 2001 through March 2022.

Steven A. DeMartino was named as TransAct's President, Chief Financial Officer, Treasurer and Secretary on June 1, 2010. Previously, Mr. DeMartino served as Executive Vice President, Chief Financial Officer, Treasurer and Secretary from June 2004 to May 2010, Senior Vice President, Finance and Information Technology from October 2001 to May 2004, Vice President and Corporate Controller from January 1998 to October 2001, and Corporate Controller from August 1996 to December 1997. Mr. DeMartino is a certified public accountant.

Tracey S. Winslow was appointed Chief Revenue Officer of the Company in March 2023 with responsibility for worldwide sales in all of the Company's markets. Prior to this appointment, Ms. Winslow served as Senior Vice President, Casino and Gaming Sales from June 2010 to February 2023, with responsibility for the sales and marketing of all casino and gaming products. Previously, Ms. Winslow served as Senior Vice President, Sales and Marketing from June 2007 to May 2010, Senior Vice President, Marketing and Sales, POS and Banking with the Company from July 2006 to June 2007, and joined TransAct in May of 2005 as Senior Vice President, Marketing. Prior to joining TransAct, Ms. Winslow was employed with Xerox Corporation where she held the role of Manager, Worldwide Marketing since 2003, and Manager, Sales Operations from 2000 to 2002. She joined Xerox Corporation in 1983.

Brent Richtsmeier was named as Chief Technology Officer in September 2021. Previously, Mr. Richtsmeier served as Senior Vice President, Software Engineering since joining TransAct in December 2019 and was appointed as an officer of the Company in January 2021. Prior to joining TransAct, Mr. Richtsmeier was employed with Samsung, an electronics corporation, from May 2004 until November 2017 as the VP of Development where he was responsible for software strategy, software development at scale and business development. In November 2017, Samsung Electronics sold their business products division to HP Inc, and Mr. Richtsmeier transferred to HP Inc to become the Global Head of Cloud and Mobile Software Solutions until joining TransAct in 2019.

There are no family relationships between any of our executive officers and there is no arrangement or understanding between any of such officers and any other person pursuant to which he or she was selected as an officer. Each of our executive officers was elected by the Board of Directors to hold office until his or her successor is elected and qualified or until his or her earlier resignation or removal.

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Item 1A. Risk Factors.

Investors should carefully consider the risks, uncertainties and other factors described below, as well as other disclosures in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, because they could have a material adverse effect on our business, financial condition, operating results, and growth prospects. The risks described below are not the only ones facing our Company. Additional risks and uncertainties not presently known to us, or that we currently believe to be immaterial, may also impair our business operations. In the event that such risks or uncertainties materialize, our business, financial condition, and results of operations could be materially adversely affected.

We assume no obligation (and specifically disclaim any such obligation) to update these Risk Factors or any other forward-looking statements contained in this Form 10-K to reflect actual results, changes in assumptions or other factors affecting such forward-looking statements, except as required by law.

Risks Related to our Financial Condition and Future Operating Results

We experienced a net loss in 2020, 2021 and 2022, we anticipate making further investments in product development and may increase expenses in the future, and we may not be able to achieve, maintain or increase profitability in future periods.

We incurred a net loss of \$5.9 million, \$4.0 million and \$5.6 million in 2022, 2021 and 2020, respectively, we anticipate making further investments in product development and may increase expenses in future periods, and we may not be able to achieve, maintain or increase profitability in the future. We have expended and expect to continue to expend substantial financial and other resources on developing our food service technology business, including expanding our offerings, developing or acquiring new products and services and increasing our sales and marketing efforts. These efforts may be more costly than we expect and may not result in increased revenue or growth in our food service technology business. Any failure to increase our revenue sufficiently to keep pace with our investments and other expenses could prevent us from achieving, maintaining or increasing profitability or positive cash flow on a consistent basis. This risk may be exacerbated by current economic conditions, which have resulted and may continue to result in increased costs and may, despite the demand recovery we experienced in 2022, result in decreased demand for our products. If we are unable to successfully address these risks and challenges as we encounter them, our business, financial condition, and results of operations could be adversely affected.

Our operating results and financial condition may fluctuate.

Our operating results and financial condition may fluctuate from quarter to quarter and year to year and are likely to continue to vary due to a number of factors, many of which are not within our control. If our operating results do not meet the expectations of securities analysts or investors, who may derive their expectations by extrapolating data from recent historical operating results, the market price of our common stock will likely decline. Fluctuations in our operating results and financial condition may occur due to a number of factors, including, but not limited to, those identified below and throughout this "Risk Factors" section:

- delays between our expenditures to develop and market new or enhanced products and consumables and the generation of sales from those products;
- the geographic distribution of our sales and our supply chain;
- market acceptance of our products, both domestically and internationally;
- development of new competitive products by others;
- our responses to price competition;
- our level of research and development activities;
- changes in the amount that we spend to develop, acquire or license new products, consumables, technologies or businesses;
- changes in the amount we spend to promote our products and services;
- changes in the cost of satisfying our warranty obligations and servicing our installed base of products;
- availability of third party components at reasonable prices or at all;
- general economic and industry conditions, including inflation and changes in interest rates affecting returns on cash balances and investments, that
 affect customer demand;
- the dependence of our supply chain on a few, foreign third party manufacturers and suppliers and the impact on our supply chain of product or component shortages and cost increases due to events beyond our control, including the COVID-19 pandemic, inflation and political or social instability such as the ongoing Russia-Ukraine conflict;
- severe weather events, public health crises, military actions and other external events out of our control that can disrupt our operations or the
 operations of our customers' or suppliers' facilities; and
- changes in accounting rules.

Due to all of the foregoing factors, and the other risks discussed in this Form 10-K, quarter-to-quarter comparisons of our operating results may not be an indicator of future performance.



Risks Relating to the COVID-19 Pandemic and Global Political and Economic Conditions

The COVID-19 pandemic and the resulting economic conditions have had an adverse impact on our business, operations, financial condition, results of operations and capital resources, as well as on the operations and financial performance of many of our customers and suppliers. We are unable to predict the ultimate extent to which the pandemic and related economic effects will adversely impact our business, operations, financial condition, results of operations, capital resources and the achievement of our strategic objectives.

Since early 2020, the COVID-19 pandemic has continued to cause uncertainty and disruption in the global economy and financial markets. We have also been impacted by global supply chain issues, increased shipping costs and inflationary pressures, which have increased our costs and, in some instances, slowed our ability to deliver products to our customers. During 2021, our inventory levels decreased significantly as a result of these supply chain disruptions, and we experienced significantly lower sales levels until we were able to modify our products that were affected by supply chain disruptions or source component parts from alternate suppliers. During 2022, we were able to increase our inventory levels and reduce the impact to our customers by modifying certain products that were affected by supply chain disruptions as well as sourcing component parts from alternate suppliers. However, there can be no assurance that new or continuing supply chain disruptions will not affect our products or that we will be able to make timely modifications or find alternate suppliers to address any future supply chain issues that may arise, or that we will be able to offset any future cost increases, should they arise, by increasing prices of our products. After a slowdown in the first quarter of 2022 resulting from the Omicron and other variants of COVID-19, we continued to experience demand recovery during the remainder of 2022 and into 2023, but there can be no guarantee that this trend will continue, and the exact timing and pace of recovery may be impacted by global economic conditions. If recovery does not occur at the pace we anticipate, if we cannot offset our cost increases or otherwise manage costs, or if supply chain disruptions cause us to be unable to meet customer demand, this may have a material adverse impact on our business, operations, financial condition, results of operations and capital resources.

In addition, any of the risks and uncertainties set forth in this Form 10-K could be further heightened by the COVID-19 pandemic and the resulting economic effects, which could have a material adverse effect on the Company's business, prospects, financial condition, results of operations and capital resources and the achievement of our strategic objectives.

We purchase component parts and consumable products from third party and sole source suppliers, and any interference with this supply chain may impact our ability to manufacture and sell our products.

We rely on third party or sole source suppliers to provide certain key components for our products. We do not have guaranteed supply contracts with any of our component suppliers, and our suppliers could delay shipments, increase prices or cease manufacturing or selling such components to us at any time, including as a result of the current global microchip shortage. Such disruptions have resulted in delays in delivery of products to customers and could in the future result in additional delays, even if we are able to source components from alternate suppliers. Supply chain disruptions have impacted, and could continue to impact, our ability to maintain sufficient inventory on hand. As a result, we have paid, and may continue to pay, increased shipping charges to expedite our receipt of components and inventory and the delivery of finished products to our customers. In addition, we have incurred increased costs to obtain certain products and components from alternate suppliers when our usual suppliers did not have products available for us, and we may incur such costs in the future if we need to seek alternate suppliers for any of our components. Cost increases and component shortages may be exacerbated by events beyond our control, such as changing economic conditions, inflation, currency and commodity price fluctuations, tariffs, resource availability, transportation costs, weather conditions and natural disasters, political unrest and instability, war (such as the ongoing military conflict between Russia and Ukraine) and other factors impacting supply and demand pressures. Continued or worsening disruptions in the supply chain of such component parts and consumable products could delay our production or release of our new products, cause us to incur additional freight costs and hinder our ability to meet our commitments to customers. If we are unable to obtain sufficient quantity of these components on commercially reasonable terms or in a timely manner, or if we are unable to obtain alternative sources for the components, sales of our products could be delayed or halted entirely or we may have to redesign our products, as we did with certain products in the recent past, to help meet market demand. There can be no assurance that any cost increases attributable to supply chain disruptions can be fully offset by price increases, or that we will continue to be able to fulfill orders on time, and continued or prolonged impacts on our supply chain may result in lost sales, reduced gross margins or damage to our end-customer relationships, which would have a material adverse effect on our financial results.

Catastrophic events, political unrest or a downturn in economic conditions may disrupt our business.

Geopolitical events, social unrest, war, including repercussions of the recent military conflict between Russia and Ukraine, terrorism, political instability, acts of public violence, boycotts, labor discord or disruptions, hostilities, social unrest, pandemics (in addition to the COVID-19 pandemic), natural disasters or other catastrophic events may cause damage or disruption to our operations, international commerce, and the global economy, and thus could harm our business. In particular, the reactions of governments, markets, and the general public to such events, many of which are beyond our control, may result in a number of adverse consequences for our customers, business, operations, and results of operations.

For example, the continuing military conflict between Ukraine and Russia, as well as the financial and trade-related restrictions associated with Russia and Belarus and economic sanctions on certain individuals and entities in Russia and Belarus, have continued to impact international trade relations, and resulted in sustained increases in the cost of materials and components, while higher oil and other commodity prices have resulted in further increased shipping and transportation costs. If the conflict persists or escalates, this may further disrupt global supply chains and could result in shortages of key materials or components that our suppliers require to satisfy our needs. Any increases in the cost, or shortages, of raw materials, components or energy may continue to create supply issues that could constrain manufacturing levels for our products. In addition, based on the complex relationships among China, Hong Kong, Taiwan, and the United States, there is risk that political, diplomatic, and national security influences might lead to trade, technology, or capital disputes, or disruptions that may affect our business or suppliers in Asia. These tensions may be exacerbated by continuing sanctions imposed in connection with the Russia–Ukraine conflict, as there continues to be uncertainty with respect to China's willingness to support ongoing or expanded sanctions, which could distance China from its existing trade partners, potentially creating a significant negative impact on our business or on the regional or global economy.

In the event of a major earthquake, hurricane or catastrophic event such as fire, power loss, telecommunications failure, cyber-attack, war or terrorist attack, we may be unable to continue our operations and may endure system interruptions, reputational harm, breaches of data security, and loss of critical data, all of which would harm our business, results of operations, and financial condition. In addition, the insurance we maintain would likely not be adequate to cover our losses resulting from disasters or other business interruptions. Any downturn in the economy in general, including the current economic impacts of the COVID-19 pandemic (including inflation relating to supply chain disruptions caused by the pandemic) and the impact of the Russia–Ukraine conflict, or in the food service or gaming industry in particular could result in a reduced demand for our products and could adversely affect our business and results of operations. In addition, heightened security measures or responses to hostilities may cause certain governments to restrict the import or export of goods, as has occurred with respect to the export of oil from Russia, which may have an adverse effect on our ability to buy and sell goods or on the cost to obtain components.

Risks Related to Our Operations

Overestimates or underestimates in our manufacturing forecasts could cause us to hold insufficient or excess inventory or result in delays in the manufacturing and delivery of our products, which could interfere with our ability to retain orders or provide services to our customers.

If we fail to predict our manufacturing requirements accurately, we could incur additional costs or experience manufacturing delays. We currently use a rolling 12-month forecast based primarily on our anticipated product orders and our product order history to help determine our requirements for components and materials. It is important that we accurately predict both the demand for our products and the lead-time required to obtain the necessary components and raw materials. We have also modified our products in the past to substitute available components in the place of those that have become scarce or difficult to obtain, and in some instances have identified alternate sources for certain components.

Lead times for materials and components that we order vary significantly and depend on factors such as the specific supplier, the size of the order, contract terms, and demand for each component at a given time, as well as supply shortages with respect to raw materials needed to produce the components. If we underestimate our requirements, or if we are unable to obtain components on time due to supply shortages, as has occurred in the wake of the COVID-19 pandemic and global supply chain disruptions, we may have inadequate manufacturing capacity or inventory, which could interrupt manufacturing of our products and interfere with our ability to timely deliver products to our customers and adversely impact our sales. If we overestimate our requirements, we could have excess inventory of parts and finished products. Some of the actions we have taken to meet customer demand in the face of supply chain disruptions have raised our costs and decreased margins on our products, and any such actions that we take in the future could have a similar effect. Any future underestimate or overestimate of supply requirements, and any actions we may take in the future to navigate supply chain disruptions, could have a material adverse effect on our business and results of operations.

We depend on key personnel, the loss of whom could have a material adverse impact on our business.

Our future success may depend in significant part upon the continued service of certain key management and other personnel. There can be no assurance that we will be able to recruit and retain such personnel. The loss of either Bart C. Shuldman, the Company's Chief Executive Officer, or Steven A. DeMartino, the Company's President, Chief Financial Officer, Treasurer and Secretary, or the loss of certain groups of key employees, could have a material adverse effect on our business and results of operations.

Our ability to recruit, retain, and develop qualified personnel is critical to our success and growth.

To successfully compete and grow our business, we must recruit, develop and retain highly qualified managerial, technical and sales and marketing personnel. In addition, we must develop, maintain and, as necessary, implement appropriate succession plans to ensure we have the necessary human resources capable of maintaining continuity in our business.

The market for qualified personnel is competitive, and we may not succeed in recruiting additional personnel or may fail to effectively replace current personnel who depart with qualified or effective successors. Our effort to retain and develop personnel may also result in significant additional expenses, which could adversely affect our profitability. We are also substantially dependent on our sales force to obtain new customers and increase sales to existing customers. There is significant competition for sales personnel with the skills and technical knowledge that we require. Our ability to achieve significant revenue growth will depend, in large part, on our success in recruiting, training, and retaining a sufficient number of sales personnel to support our growth. If we are unable to hire, train, and retain a sufficient number of qualified and successful sales personnel, our business, financial condition, and results of operations may be harmed.

Our food service technology business depends substantially on our customers renewing their subscriptions with the Company. Any decline in our customer renewals could harm our food service technology business, results of operations and financial condition.

Our subscription offerings are term-based, and in order for us to maintain or improve our results of operations, it is important that our customers renew their subscriptions with us when the existing subscription term expires and renew on the same terms or terms more favorable to the Company. Our customers have no obligation to renew their applications and subscriptions, and they may not renew one or more of their applications as they are purchased separately and individually. We also may not be able to accurately predict customer renewal rates. Customers may elect not to renew their subscriptions with us for a variety of reasons, including as a result of changes in their strategic priorities, budgets and costs and, in some instances, due to competing solutions. Our retention rate may also decline or fluctuate as a result of a number of other factors, including our customers' satisfaction or dissatisfaction with our solutions, the increase in the contract value of subscription and support contracts from new customers, the effectiveness of our customer support services, our pricing, the prices of competing products or services, global economic conditions and the other risk factors described herein. As a result, there can be no assurance that our food service technology customers will renew any or all of their individually purchased application subscriptions. If our customers do not renew their subscriptions or renew on less favorable terms, our business, results of operations and financial condition may be adversely affected.

Because we rely in part on revenue from subscription contracts and recognize revenue from subscription contracts over the term of the relevant subscription period, downturns or upturns in sales are not immediately reflected in full in our results of operations.

Subscription services revenue accounts for a growing portion of our food service technology revenue. Sales of new or renewal subscription contracts may decline or fluctuate as a result of a number of factors, including customers' level of satisfaction with our solutions, the prices of our subscriptions offered by our competitors, reductions in our customers' spending levels, or other changes in consumer behavior. If our sales of new or renewal subscription contracts decline, our revenue and revenue growth may decline. We recognize subscription revenue ratably over the term of the relevant subscription period, which is generally 12 months in duration. As a result, much of the subscription revenue we report each quarter is derived from subscription contracts that we sold in prior quarters.

Consequently, a decline in new or renewed subscription contracts in any one quarter will not be fully reflected in revenue in that quarter but will negatively affect our revenue in future quarters. Accordingly, the effect of significant downturns in new or renewal sales of our subscriptions is not reflected in full in our results of operations in a given period. Also, it is difficult for us to rapidly increase our subscription revenue through additional sales in any period, as revenue from new and renewal subscription contracts must be recognized ratably over the applicable subscription period. Furthermore, any increases in the average term of subscription contracts would result in revenue for those subscription contracts being recognized over longer periods of time.

If we fail to offer high quality support, our business and reputation could suffer.

Our customers rely on us and our third party service providers for support of our software and services included in our food service technology subscription packages. High-quality support is important for the renewal and expansion of our agreements with existing customers. The importance of high-quality support will increase as we expand our business and pursue new customers. If we or our third party service providers do not help our customers quickly resolve issues and provide effective ongoing support, our ability to sell new food service technology products to existing and new customers could suffer and our reputation and relationships with existing or potential customers could be harmed.

We experience elements of seasonal fluctuations in the food service technology and POS markets which could cause our stock price to fluctuate.

Our food service technology business is highly dependent on the behavior patterns of our customers and their guests. Restaurants typically reduce purchases of equipment in the fourth calendar quarter due to the increased volume of transactions during the holiday period, which may negatively impact sales of our food service technology products or POS printers during that period. As a result, seasonality may cause fluctuations in our financial results, and other trends that develop may similarly impact our results of operations.

Risks Related to Intellectual Property and Data Security

Cyber-security and privacy breaches, cyber-attacks, or other disruptions could expose us to liability, affect our business, and damage our reputation.

We are increasingly dependent on our information technology systems and infrastructure for our business. We collect, store, and transmit sensitive information including intellectual property, proprietary business information and personal information of employees and, to a lesser extent, customers in connection with business operations. The secure maintenance of this information is critical to our operations and business strategy. Some of this information could be an attractive target of criminal attack by third parties with a wide range of motives and expertise, including organized criminal groups, disgruntled current or former employees, and others. Cyber-attacks are of ever-increasing levels of sophistication, and despite our extensive security measures, our information technology and infrastructure may be vulnerable to such attacks or may be breached, including due to employee error or malfeasance. Further, our BOHA! applications are hosted within cloud platforms that are managed by third parties. Any such breach could compromise our networks and the information stored there could be accessed, publicly disclosed, lost or stolen, and our business operations may be interrupted. If our systems become compromised, we may not promptly discover the intrusion. Like other companies in our industry, we have experienced attacks to our data and systems, including malware and computer viruses that we have been able to detect and eliminate. However, as disclosed on November 16, 2022, a criminal cybersecurity incident impacted our operational and information technology systems. The Company worked with a team of forensic experts to fully understand the extent and implications of this incident and we fully restored operations within a remediated environment. If our systems fail or are breached or disrupted by other future attacks, we could lose product sales, and suffer reputational damage and loss of customer confidence. Such incidents could require notification to affected individuals and may result in legal claims or proceedings and liability under federal and state laws that protect the privacy and security of personal information. If third parties use a cyber-attack to gain access to our proprietary information, they may sell it or use it to duplicate our products, which could put us at a competitive disadvantage. Any one of these events could cause our business to be materially harmed and our results of operations to be adversely impacted, and there can be no assurance that the insurance that we maintain to address certain aspects of cybersecurity risks will be sufficient to cover all losses or all types of claims that may arise.

These risks may be exacerbated by global political unrest. For example, the Russia–Ukraine conflict and related sanctions imposed by the U.S. government may expose government entities and public and private U.S. companies to attempted or actual cyber-security attacks launched in retaliation, and these attacks could materially disrupt our supply chain or our systems and operations or those of our customers and suppliers.



The inability to protect our intellectual property rights could harm our reputation, damage our business or interfere with our competitive position.

Our intellectual property is valuable and provides us with certain competitive advantages. Copyrights, patents, trademarks, service marks, trade secrets, technology licensing agreements, nondisclosure agreements and contracts are used to protect these proprietary rights. Despite these precautions, it may be possible for third parties to copy aspects of our products or, without authorization, to obtain and use information that we regard as trade secrets. Our pending patents may be denied, and our patents may be circumvented by our competitors. In addition, the laws of some foreign countries do not protect our proprietary rights as fully as do the laws of the United States. There can be no assurance that our means of protecting our proprietary rights in the United States or abroad will be adequate or that competing companies will not independently develop similar technologies. Our failure to adequately protect our proprietary rights could have a material adverse effect on our competitive position and our business.

Prosecuting or defending against intellectual property litigation could be time consuming and costly, and an claims that we have infringed upon the intellectual property rights of others could impede our business and put us at a competitive disadvantage.

Prosecuting and defending against intellectual property litigation is generally complex, costly, protracted, and highly disruptive to business operations by diverting the attention and energies of management and key technical personnel. We are committed to aggressively asserting and defending our technology and related intellectual property rights, which we have spent a significant amount of money to develop. Similarly, third parties have claimed and may claim, from time to time in the future, that we have violated their intellectual property rights. In the event that a court rules that we have violated a third party's patent or other intellectual property rights, we may be prevented from operating our business as planned and may be required to pay damages, to obtain a license, if available, or to use a non-infringing method, if possible, to accomplish our objectives. Any such claims could result in costly litigation and, if successful, could result in costly judgments or settlements, and there can be no assurance that a license or a substitute technology will be available on favorable terms, or at all. Any such outcome could have a material adverse effect on our business, financial condition and results of operations.

Risks Related to Product Development

Our revenue and profitability depend on our ability to continue to develop or license, on a timely basis, new products and technologies which are free from hardware or software anomalies and cannot be fraudulently manipulated, and customer acceptance of such products.

Our success depends upon our and our development partners' ability to timely adapt our capabilities and processes to meet the demands of producing new and innovative products. Because our newer products contain software and generally are more technologically sophisticated than those we have produced in the past, we must continually refine our capabilities to meet the needs of our product innovation. If we cannot efficiently adapt our infrastructure to meet the needs of our product innovations in a timely manner, our business could be negatively impacted.

Developers, on our behalf, successfully develop such products, there is no assurance that our innovations will be accepted by our customers. Developing and marketing new products, such as our line of BOHA! products, is costly, and our business could be materially adversely affected if we are unable to generate sales of such products or if our existing or new customers do not quickly accept such products. Customer acceptance is crucial because new products typically have little competition and market penetration due to their novelty. Customer acceptance of new products is never assured and may take time to materialize, even with respect to products developed with customer input. Further, technological innovation often results in unintended consequences such as bugs, vulnerabilities, and other system failures. Any such bug, vulnerability, or failure, especially in connection with a significant technical implementation or change, could result in lost business, harm to our brand or reputation, consumer complaints, and other adverse consequences, any of which could materially adversely affect our business, results of operations, and financial condition.

Risks Related to Our Partners and Suppliers

We rely on an unrelated third party to develop, maintain and host certain portions of our food service technology software, and any disruption in the relationship with that third party, or any defects in the software provided by that third party, could have a material adverse effect on our reputation, business, financial condition and results of operations.

We rely upon third party developed software and hosting services combined with our own proprietary hardware and software to offer our unique BOHA! branded solution to support back-of-house operations in the food service industry. Certain web-based food service application software and selected components of our downloadable software applications are licensed from a third party developer on a non-exclusive basis through 2031 and are subject to a revenue sharing arrangement with the developer. We are reliant upon the third party developer to further develop and maintain its developed software, and the developer controls the software source code. Therefore, presently, we are highly dependent on this third party developer for continued service to our customers and the further development of our food service technology software products. If the software provider were to terminate operations or otherwise be unavailable to provide maintenance, hosting and development services to us and our customers, the availability or usage of our software products could be disrupted and our customers could be adversely affected. In any such case, we may need to seek comparable software and services from other third parties or develop it internally, which could require significant time and expense. There can be no assurance that such software or services would be available from other sources, or that if available, they would be of comparable quality and cost. Moreover, any efforts to develop new software, whether internal or by third-parties, would require significant lead time, and there could be an interruption in service during any period in which the software provider ceases to provide products and services and new products remain under development. Any such occurrence could materially and adversely impact our business, financial condition and results of operations.

Any errors or defects in, or failures of, third party software or applications could result in errors or defects in or failures of our food service technology products and services, which could be costly to correct and have a material adverse effect on our reputation, business, financial condition and results of operations.

We are currently dependent upon a manufacturer located in Thailand for the manufacturing and assembly of a substantial portion of our printers and terminals, and any further or future disruption in the businesses or operations of this manufacturer, such as those caused by the COVID-19 pandemic, political, social or economic instability, war, trade restrictions or tariffs, severe weather, changes in climate, additional public health crises and other events out of our control could materially adversely affect our business, financial condition and results of operations.

In an effort to maximize cost savings and operation benefits, we have outsourced substantially all of the manufacturing and assembly of our printers and terminals to a contract manufacturer located in Thailand. As a result, we are dependent on them for the manufacturing of our products, and any disruption in such manufacturing or the export of products from this manufacturer to the U.S. may adversely affect our business, financial condition and results of operations.

Risks affecting the businesses and operations of our manufacturer in Thailand include: political and regional strife; war; labor shortages; severe weather and natural disasters such as earthquakes, hurricanes, fires, and floods, whether as a result of climate change or otherwise; lengthy power outages; increased pricing, financial instability and capacity constraints of shippers; government imposition of tariffs which may impact the cost or availability of products or components that we purchase; and concerns with or threats of public health crises, contagious diseases or health epidemics. Though we are seeking a second source, the risk to our business posed by any disruption in manufacturing is exacerbated by the concentration of substantially all of our manufacturing operations in one manufacturer located in Thailand.

If the contract manufacture is unable to manufacture our products or continue operating their facilities, as occurred in connection with the COVID-19 pandemic, we will have limited means for the final assembly of a majority of our products until we are able to secure the manufacturing capability at another facility or develop an alternative manufacturing facility, which could be costly and time consuming and have a material adverse effect on our operating and financial results.

We may also incur increased business continuity and reputational risks to the extent that we continue to outsource the manufacturing and assembly of our products to foreign third party service providers. For example, outsourcing of manufacturing prevents us from exercising control over the assembly of certain of our products and related operations or processes, including the internal controls associated with operations and processes conducted and the quality of our products assembled by contract manufacturers. If we are unable to effectively manage and oversee our outsourcing strategy, we may not realize cost structure efficiencies and our operating and financial results could be materially adversely affected. Outsourcing also exposes us to increased risk of infringement or misappropriation of our intellectual property, to which our manufacturers have access. Because our manufacturer is located in Asia, there is no guarantee that our intellectual property rights will be protected or enforced to the same extent as under U.S. federal and state laws. Consequently, we may not be able to prevent third parties from developing or selling products made using our technologies.

We rely on distributors and resellers to sell our products and services.

We use a variety of distribution channels, including OEMs and distributors, to market and sell our products and services. We may be adversely impacted by any conflicts that could arise between and among our various sales channels.

Our dependence upon distributors and resellers exposes us to numerous risks, including:

- loss of channel and the ability to bring new products to market;
- concentration of credit risk, including disruption in distribution should the distributors, and / or resellers' financial condition deteriorate;
- reduced visibility to end user demand and pricing issues which makes forecasting more difficult;
- distributors or resellers leveraging their buying power to change the terms of pricing, payment and product delivery schedules; and
- direct competition should a distributor or reseller decide to manufacture printers internally or source printers from a competitor.

We cannot guarantee that resellers will not reduce, delay or eliminate purchases from us, which could have a material adverse effect upon the business, consolidated results of operations and financial condition.

We currently rely on third party service providers to host our food service technology software and deliver certain services, and any interruptions or delays in services from these third parties could impair the delivery of our products and services, and our business, results of operations, and financial condition could be materially adversely affected.

We rely on a third party service provider to host our food service technology software. Third parties also provide services to key aspects of our operations, including Internet connections and networking, data storage and processing, trust and safety and security infrastructure. We do not control the operation, physical security, or data security of any of these third party providers. Our efforts to use commercially reasonable diligence in the selection and retention of such third party providers may be insufficient or inadequate to prevent or remediate such operational and security risks. Our third party providers may be subject to intrusions, computer viruses, denial-of-service attacks, sabotage, acts of vandalism, acts of terrorism or other misconduct. They are vulnerable to damage or interruption from power loss, telecommunications failures, fires, floods, earthquakes, hurricanes, tornadoes, and similar events, and they may be subject to financial, legal, regulatory, and labor issues, each of which may impose additional costs or requirements on us or prevent these third parties from providing services to us or our customers on our behalf. From time to time, our software maintained by these third parties has experienced brief interruptions in service which we have been able to resolve promptly by working with the third-party providers, and there may be future such interruptions that could have a material adverse effect on our customer relationships or be more costly or time-consuming to resolve. In addition, these third parties may breach their agreements with us, disagree with our interpretation of contract terms or applicable laws and regulations, refuse to continue or renew these agreements on commercially reasonable terms or at all, fail to or refuse to process transactions or provide other services adequately, take actions that degrade the functionality of our platform and services, increase prices, impose additional costs or requirements on us or our customers, or give preferential treatment to our competitors. If we are unable to procure alternatives in a timely and efficient manner and on acceptable terms, or at all, we may be subject to business disruptions, losses, or costs to remediate any of these deficiencies. The occurrence of any of the above events could result in reputational damage, legal or regulatory proceedings, loss of customers or other adverse consequences, any of which could materially adversely affect our business, results of operations, and financial condition.

Risks Related to Competition, Sales and Marketing

We compete in highly competitive markets, which are likely to become more competitive. Competitors may be able to respond more quickly to new or emerging technology and changes in customer requirements.

We face significant competition in developing and selling our printers, terminals, software, consumables and services. Our principal competitors have substantial marketing, financial, development and personnel resources. To remain competitive, we believe we must continue to provide:

- technologically advanced products that satisfy user demands;
- superior customer service;
- high levels of quality and reliability; and
- dependable and efficient distribution networks.

We cannot ensure we will be able to compete successfully against current or future competitors. Increased competition may result in price reductions, lower gross profit margins and loss of market share, and could require increased spending on research and development, sales and marketing and customer support. Some competitors may make strategic acquisitions or establish cooperative relationships with suppliers or companies that produce complementary products, which may include relationships with our software developer. Any of these factors could reduce our earnings.

Our food service technology market operates in an emerging and evolving industry, which makes it difficult to evaluate the future prospects of this market.

We launched our BOHA! offering in 2019 and have grown our food service technology significantly since then. This is still an emerging market that is continually evolving as technology develops to automate back-of-house tasks that were historically performed manually. This evolving nature of the food service technology market may make it difficult to evaluate our future prospects in this market and the risks and challenges we may encounter. These risks and challenges include, but are not limited to, our ability to:

- accurately forecast our revenue and plan our operating expenses;
- increase the number of customers (and retain existing customers and their guests) using our platform;
- successfully compete with current and future competitors;
- successfully expand our market presence business in existing markets and enter new markets and geographies;
- maintain and enhance the value of our reputation and brand;
- adapt to rapidly evolving trends in the ways our customers interact with technology;
- timely respond to customer needs with technology developments that enable our products to evolve to meet the changing demands of the marketplace;
- avoid interruptions or disruptions in our service;
- manage the risk of loss relating to food safety issues if there is a failure of our offerings designed to help in part to help assure perishable goods are safely preserved;

Risks Related to Our Customers

We are dependent on sales to one large customer; the loss of this customer or reduction in orders from this customer could materially affect our sales.

Casino and gaming sales and lottery printer spare parts sales to IGT represent a material percentage of our net sales. A reduction, delay or cancellation in orders from this customer, including reductions or delays due to market, economic, or competitive conditions in the industries in which we serve, could have a material adverse effect upon our results of operations.

Risks Related to Growth and Strategic Transactions

Our success will depend on our ability to sustain and manage growth.

As part of our business strategy, we intend to pursue a growth strategy. Assuming this growth occurs, it will require the expansion of customer relationships in domestic and international markets, the successful development and marketing of new products for our existing and new markets, expanded internal sales and marketing, customer service and support, and the continued implementation and improvement of our operational, financial and management information systems.

To the extent that we seek growth through acquisitions, our ability to manage our growth will also depend on our ability to integrate businesses that have previously operated independently. We may not be able to achieve this integration without encountering difficulties or experiencing the loss of key employees, customers or suppliers. It may be difficult to design and implement effective financial controls for combined operations and differences in existing controls for each business may result in weaknesses that require remediation when the financial controls and reporting functions are combined. If we pursue acquisitions, we may incur legal, accounting and other transaction-related expenses for unsuccessful acquisition attempts that could adversely affect our results of operations in the period in which they are incurred. There is no guarantee that any acquisitions will be accretive, or that future acquisitions will not result in additional impairments or write-downs. The existence of one or more material liabilities of an acquired company that are unknown to us at the time of acquisition could result in our incurring those liabilities.

There can be no assurance that we will be able to successfully implement a growth strategy, or that we can successfully manage expanded operations, if they occur. If we expand, we may from time-to-time experience constraints that will adversely affect our ability to satisfy customer demand in a timely fashion. Failure to manage growth effectively could adversely affect our results of operations and financial condition.

We may not be able to successfully identify and execute future acquisitions, dispositions or other strategic transactions or to successfully manage the impacts of such transactions on our operations.

Acquisitions, dispositions and other strategic transactions involve a number of risks, including: (i) the potential disruption of our ongoing business; (ii) the distraction of management away from the ongoing oversight of our existing business activities; (iii) incurring additional indebtedness or issuing equity that may be dilutive to existing stockholders; (iv) the anticipated benefits and cost savings of those transactions not being realized fully, or at all, or taking longer to realize than anticipated; (v) an increase in the scope and complexity of our operations; (vi) the loss or reduction of control over certain of our assets; and (vii) the depletion of cash to pay for an acquisition. There can be no assurance that we will find suitable opportunities for strategic transactions at acceptable prices, have sufficient capital resources to pursue such transactions, be successful in negotiating required agreements, or successfully close transactions after signing such agreements. A strategic transaction may result in a significant change in the nature of our business, operations and strategy, and we may encounter unforeseen obstacles or costs in implementing a strategic transaction or integrating any acquired business into our operations. We cannot predict the number, timing or size of future strategic transactions, if any, or the effect that any such transactions might have on our operating results.

Risks Related to Our International Operations

In addition to maintaining offices in the UK and Macau, we sell and ship a significant portion of our products internationally and rely on third parties that make up part of our global salesforce. The international nature of our operations may expose us to certain risks associated with doing business outside of the U.S., including risks posed by tariffs and changes in trade relations.

We sell a significant amount of our products to customers outside the United States. Shipments to international customers are expected to continue to account for a material portion of net sales. In addition, our manufacturer and suppliers are largely located in Asia. As a result, our products are largely exported to one of our facilities in the United States, which makes our operations vulnerable to disruptions in trade that could adversely affect our business results.

Our international operations, including our reliance on manufacturers and suppliers located in Asia, our worldwide sales team, and our sales to customers located outside the United States, expose us to disruptions in trade and other associated risks such as:

- the imposition of additional duties, tariffs, quotas, taxes, trade barriers, capital flow restrictions and other charges on imports and exports by the United States or the governments of the countries in which we or our manufacturers and suppliers operate;
- delays in the delivery of cargo due to port security considerations, labor disputes such as dock strikes, and our reliance on a limited number of shipping and air carriers, which may experience capacity issues that adversely affect our ability to ship inventory in a timely manner or for an acceptable cost;
- fluctuations in the value of the U.S. Dollar against foreign currencies, which could restrict sales, or increase costs of purchasing, in foreign countries;
- economic or political instability in any of the countries in which we or our manufacturers or suppliers operate, which could result in a reduction in demand for our products due to political and economic instability or impair our foreign assets;
- a reduced ability or inability to sell in or purchase from certain markets as a result of export or import restrictions;
- potentially limited intellectual property protection in certain countries, such as China, may limit recourse against infringing products or cause us to refrain from selling in certain geographic territories;
- reliance on a limited number of shipping and air carriers who may experience capacity issues that adversely affect our ability to ship inventory in a timely manner or for an acceptable cost; and
- economic uncertainties and adverse economic conditions (including inflation and recession).

Although we carry business interruption insurance to cover lost revenue and profits in an amount we consider adequate, this insurance does not cover all possible situations. In addition, the business interruption insurance would not compensate us for the loss of opportunity and potential adverse impact, both short-term and long-term, on relations with our existing customers resulting from our inability to produce products for them.

Risks Related to Regulations, Taxation, Governance and the Environment

If market conditions deteriorate or future results of operations are less than expected, a valuation allowance may be required for all or a portion of our deferred tax assets.

We currently have deferred tax assets, which may be used to reduce taxable income in the future. We assess the realization of these deferred tax assets on a quarterly basis, and if we determine that it is more likely than not that some portion of these assets will not be realized, an income tax valuation allowance is recorded. If market conditions deteriorate or future results of operations are less than expected, or there is a change to applicable tax rules, future assessments may result in a determination that it is more likely than not that some or all of our net deferred tax assets are not realizable. As a result, we may need to establish a valuation allowance for all or a portion of our net deferred tax assets, which may have a material adverse effect on our business, results of operations and financial condition.

Changes in tax rates or tax liabilities could affect results.

We are subject to taxation in the United States and certain state and foreign jurisdictions. Significant judgment is required to determine and estimate our tax liabilities. Our future annual and quarterly tax rates could be affected by numerous factors, including changes in the (1) applicable tax laws; (2) composition of earnings in countries with differing tax rates; or (3) recoverability of our deferred tax assets and liabilities. Beginning in 2022, the U.S. Tax Cuts and Jobs Act of 2017 ("TCJA") eliminated the existing option to deduct research and development expenditures and requires taxpayers to amortize them over five years pursuant to IRC Section 174. The requirement is not expected to materially impact our cash flows. In August 2022, the United States enacted the Inflation Reduction Act of 2022 ("IRA") which includes a new 15% corporate minimum tax as well as a 1% excise tax on fair value of corporate stock repurchases made after December 31, 2022. The IRA is not expected to impact our tax position. Any of these developments or any future changes in federal, state, or international tax laws or tax rulings could adversely affect our effective tax rate and our results of operations.

Risks Related to our Indebtedness

The agreement governing our credit facility contains restrictions and limitations that could significantly affect our ability to operate our business, as well as significantly affect our liquidity.

The loan and security agreement (the "Loan Agreement") governing the Siena Credit Facility contains a number of significant covenants that could adversely affect our ability to operate our business, our liquidity, and our results of operations. These covenants restrict, among other things, our ability, and the ability of any future domestic subsidiary, to:

- merge, consolidate, form subsidiaries or dispose of assets;
- acquire assets outside the ordinary course of business;
- enter into other transactions outside the ordinary course of business;
- sell, transfer, return or dispose of collateral;
- make loans to or investments in, or enter into transactions with, affiliates;
- incur or guarantee indebtedness, incur liens;
- redeem equity interests while borrowings are outstanding under the credit facility;
- change our capital structure; or
- dissolve, divide, change our line of business or cease or suffer a disruption to all or a material portion of our business.

Additionally, the Loan Agreement requires us to comply with a minimum excess availability covenant, which requires excess borrowing availability of at least \$750 thousand and the Loan Agreement requires us to maintain outstanding borrowings of at least \$2,250,000 in principal amount. The breach of any covenants or obligations in the Loan Agreement, if not otherwise waived or amended, could result in a default under the Loan Agreement and could trigger acceleration of our obligations thereunder and permit the lender to foreclose on the collateral securing our obligations under the Loan Agreement and exercise other rights of secured creditors.

Availability under the Siena Credit Facility is subject to a borrowing base, which is based on eligible accounts receivable and inventory. To the extent that our eligible accounts receivable and inventory decline in value, our borrowing base will decrease, and the availability under the Siena Credit Facility currently is and may continue to be less than its stated amount and may decrease. In addition, if at any time the amount of outstanding borrowings and letters of credit under that facility exceeds the borrowing base, we are required to prepay borrowings and/or cash collateralize letters of credit sufficient to eliminate the excess.

Our ability to comply with the covenants under the Loan Agreement or to maintain our borrowing base may be affected by events beyond our control, including deteriorating economic conditions. For example, reductions in the value of accounts receivable and inventory may occur in the future due to decreases in sales and production resulting from the impact of future economic uncertainties. Further, certain slow-moving inventory and accounts receivable that remain unpaid for a specified period of time are excluded from the borrowing base calculation. Thus, a decline in economic conditions and/or a decline in the financial condition of customers in the industries we serve may negatively impact the borrowing base both by decreasing the value of existing accounts and reducing the number and amount of new accounts. If we overestimate our inventory needs due to the uncertainty surrounding future economic conditions, we may have inventory that is considered slow-moving and thus excluded from the borrowing base calculation, and any reduction in response to decreased demand would also result in a lower inventory value and thus a lower borrowing base.

Any of these events could require us to seek waivers or amendments of covenants or alternative sources of financing or to reduce expenditures. We cannot assure you that such waivers, amendments or alternative financing could be obtained, or if obtained, would be on terms acceptable to us, or that we would be able to reduce expenditures enough to offset any decrease in the borrowing base, or that we could make such reductions without a material negative impact on our business.

General Risk Factors

General economic conditions could have a material adverse effect on our business, operating results and financial condition.

Our business is subject to general economic conditions. Uncertainty or negative trends in U.S. or international economic and investment climates, including the impact of developments in U.S.-China trade relations, as well as economic impacts from the Russia-Ukraine conflict and the current inflation surge attributable in part to supply chain disruptions, could adversely affect our business. For example, customers or potential customers could reduce or delay orders, key suppliers could become insolvent, which could result in production delays, and our customers may become insolvent or be unable to obtain credit. Any of these possible effects could impact our ability to effectively manage inventory levels and collect receivables, create unabsorbed costs due to lower net sales, and ultimately decrease our net sales and profitability including write-downs of assets.

Our stock price may fluctuate significantly.

The market price of our common stock could fluctuate significantly in response to variations in quarterly operating results and other factors, such as:

- prevailing domestic and international market and economic conditions, and conditions in the industries we serve, including current market volatility, inflation and rising interest rates and the ongoing economic impact of the COVID-19 pandemic;
- adverse business conditions faced by customers, or bankruptcies or store closures of our customers resulting from adverse economic conditions due to inflation, resurgences or new variants of COVID-19 or otherwise;
- changes in our business, operations or prospects;
- developments in our relationships with our customers or strategic partners;
- announcements of new products or services by us or by our competitors;
- announcement or completion of acquisitions by us or by our competitors;
- changes in existing, or adoption of additional, government regulations; and
- unfavorable or reduced analyst coverage.

In addition, the stock market may experience significant price fluctuations year-to-year. Broad market fluctuations, general economic conditions and specific conditions in the industries in which we operate may adversely affect the market price of our common stock.

Unfavorable analyst coverage or a reduction in analyst coverage of our common stock may adversely affect the price of our common stock.

The trading market for our common stock relies in part on the research and reports that industry or financial analysts may publish about us, our business, our markets and our competitors. We currently have limited analyst coverage, and many investment banks no longer find it profitable to provide securities research on micro-cap and small-cap companies. If securities analysts do not cover our common stock in the future, the lack of research coverage may adversely affect the market price of our common stock. Furthermore, if one or more of the analysts who cover us downgrade our stock, or if those analysts issue other unfavorable commentary about us or our business, our stock price may decline.

Our common stock is traded on the Nasdaq Global Market. During the year ended December 31, 2022, the average daily trading volume for our common stock as reported by the Nasdaq Global Market was approximately 38,000 shares. We are uncertain whether a more active trading market in our common stock will develop. As a result, relatively small trades may have a significant impact on the market price of our common stock, which could increase the volatility and depress the price of our common stock.

Our common stock is thinly traded, and investors may be unable to sell their shares at their desired prices, or at all, and sales of large blocks of shares may adversely affect the price of our common stock.

Our common stock has historically been sporadically or "thinly" traded, meaning that the number of persons interested in purchasing shares of our common stock at prevailing prices at any given time may be relatively small. This could lead to wide fluctuations in our share price. Investors may be unable to sell their common stock at or above their purchase price, which may result in substantial losses. As a consequence of this lack of liquidity, the trading of relatively small quantities of shares by our stockholders may disproportionately influence the price of shares of our common stock in either direction. The price of shares of our common stock could, for example, decline precipitously in the event a large number of shares of our common stock are sold on the market without commensurate demand, while an issuer with a more robust daily trading volume for its common stock might better absorb those sales without an adverse impact on its share price.

If we raise additional capital in the future, existing shareholder ownership interest in the Company could be diluted or otherwise adversely impacted, and future sales of our common stock or other financing arrangements may cause our stock price to decline.

In the future, we may sell additional shares of our common stock in public or private offerings, or we may obtain funds through a credit facility or by issuing debt or preferred securities. We may also issue additional shares of our common stock to finance future acquisitions. Shares of our common stock are also available for future issuance and sale pursuant to stock options and other equity awards that we have granted to our employees, and in the future, we may grant additional stock options, restricted stock units and other forms of equity compensation to our employees. Any issuance of equity we may undertake in the future to raise additional capital could cause the price of our common stock to decline, or require us to issue shares at a price that is lower than that paid by holders of our common stock in the past, which would result in those newly issued shares being dilutive. Sales of our common stock or the perception that such sales could occur may adversely affect prevailing market prices for shares of our common stock and could impair our ability to raise capital through future offerings. The lender under our existing debt agreement has rights that are senior to your rights as a common stockholder, and if we obtain funds in the future through a credit facility or through the issuance of debt or preferred securities, the lenders of such facility or the holders of such securities would likely also have rights senior to the rights of our common stockholders, which could impair the value of our common stock.

We do not intend to pay dividends for the foreseeable future, so investors must rely on price appreciation to realize a gain on their investment.

In January 2020, we announced the cessation of our quarterly cash dividend to accelerate our investment in BOHA!. We have not declared or paid cash dividends on our capital stock since November 2019 and do not intend to pay any cash dividends in the foreseeable future. We currently intend to retain any future earnings to finance the operation and expansion of our food service technology business, and we do not anticipate declaring or paying any dividends to holders of our common stock in the foreseeable future. Any determination to pay dividends in the future will be at the discretion of our board of directors. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize future gains on their investments.

We cannot provide any assurance that current laws, or any laws enacted in the future, will not have a material adverse effect on our business.

Our operations are subject to laws, rules, regulations, including environmental regulations, government policies and other requirements in a variety of jurisdictions, including those which we conduct business. Changes in such laws, rules, regulations, policies or requirements could result in the need to modify our products and could affect the demand for our products, which may have an adverse impact on our future operating results. If we do not comply with applicable laws, rules and regulations we could be subject to costs and liabilities and our business may be adversely impacted.

We take advantage of specified scaled disclosure requirements applicable to a "smaller reporting company" under Regulation S-K, and the information that we provide to stockholders may therefore be different than they might receive from other public companies. If some investors find our shares of common stock less attractive as a result of this scaled disclosure, there may be a less active trading market for our shares of common stock, which may increase the volatility of the market price of our common stock.

We are a "smaller reporting company," as defined in Item 10(f)(1) of Regulation S-K. As a smaller reporting company, we take advantage of specified scaled disclosure and other requirements that are otherwise applicable generally to public companies.

We intend to continue to take advantage of certain of the scaled disclosure requirements of smaller reporting companies and may continue to do so until we are no longer a smaller reporting company. We will cease to be a smaller reporting company if we have (i) equal or greater than \$250 million in market value of our shares held by non-affiliates as of the last business day of our second fiscal quarter and (ii) if the market value of our shares held by non-affiliates does not exceed \$700 million as of the last business day of our second fiscal quarter, equal or greater than \$100 million of annual revenues in our most recent fiscal year. We choose to take advantage of some but not all of these scaled disclosure requirements; therefore, the information that we provide stockholders may be different than one might get from other public companies. If some investors find our shares of common stock less attractive as a result, there may be a less active trading market for our shares of common stock and the market price of such shares of common stock may be more volatile.

Our Amended and Restated By-Laws designate certain Delaware courts as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or stockholders.

Our Amended and Restated By-Laws (the "By-Laws") provide that, unless we consent in writing to the selection of an alternative forum, to the fullest extent permitted by law, all Internal Corporate Claims must be brought solely and exclusively in the Court of Chancery of the State of Delaware (or, if such court declines to accept jurisdiction, the Superior Court of the State of Delaware, or, if such other court declines to accept jurisdiction, the United States District Court for the District of Delaware). The By-Laws define "Internal Corporate Claims" to mean claims, including claims in the right of the Company, brought by a current or former stockholder (including a current or former beneficial owner) (i) that are based upon a violation of a duty by a current or former director or officer or stockholder in such capacity or (ii) as to which the General Corporation Law of the State of Delaware confers jurisdiction upon the Court of Chancery of the State of Delaware.

This choice of forum provision may increase costs to bring a claim, discourage claims or limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other stockholders, which may discourage such lawsuits against us and our directors, officers and stockholders. Alternatively, if a court were to find this choice of forum provision inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business, financial condition or results of operations. The choice of forum provision in the By-Laws will not preclude or contract the scope of exclusive federal or concurrent jurisdiction for actions brought under the federal securities laws including the Exchange Act or the Securities Act or the respective rules and regulations promulgated thereunder.

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Item 1B. Unresolved Staff Comments.

Not applicable.

Item 2. Properties.

Our principal facilities as of December 31, 2022 are listed below. We believe that all facilities generally are in good condition, adequately maintained and suitable for their present and currently contemplated uses.

Location	Operations Conducted	Size (Approx. Sq. Ft.)	Owned or Leased	Lease Expiration Date
Hamden, Connecticut	Executive offices and sales office	11,100	Leased	October 31, 2025
Ithaca, New York	Hardware design and development, assembly and service facility	73,900	Leased	May 31, 2025
	Software design and development and casino and gaming			
Las Vegas, Nevada	sales office	19,600	Leased	November 30, 2025
Doncaster, UK	Sales office and service center	6,000	Leased	August 26, 2026
Macau, China	Sales office	180	Leased	June 30, 2023
		110,780		

Item 3. Legal Proceedings.

The Company may, in the ordinary course of business, become a party to litigation involving collection matters, contract claims and other legal proceedings relating to the conduct of its business. As of December 31, 2022, we are unaware of any material legal proceedings pending or threatened against us, or any material legal proceedings contemplated by governmental authorities.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Our common stock is traded on the Nasdaq Global Market under the symbol TACT. As of February 28, 2023, there were 211 holders of record of the common stock.

Issuer Purchases of Equity Securities

During the fourth quarter of 2022, we did not repurchase any shares of our common stock.

Dividend Policy

The Company does not currently pay cash dividends and does not intend to do so in the foreseeable future.

Sales of Unregistered Securities

None.

Item 6. [Reserved]

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

This discussion should be read in conjunction with the Consolidated Financial Statements and notes thereto.

Overview

During the year ended December 31, 2022, we continued to experience recovery from the negative impacts COVID-19 had on our business during 2021 and 2020. While we have experienced recovery in most of our markets, there are still uncertainties on how any future variants of COVID-19 and global supply chain disruptions may continue to impact our business, operations, supply chain, customers and vendors. During 2022, we continued to focus our efforts on sales execution, operating and engineering adjustments to react to global supply chain disruptions and expansion of our market share. We successfully navigated the supply chain disruptions, and thanks to a significant market share gain in our casino and gaming market, we returned to bottom line profitability in the third and fourth quarters of 2022.

During the year ended December 31, 2022, our total net sales increased 48% to approximately \$58.1 million compared to the year ended December 31, 2021. See the table below for a breakdown of our sales by market:

	Year Ended		Year Ended	l		
(In thousands, except percentages)	 December 31, 202	22	December 31, 2	2021	\$ Change	% Change
Food service technology ("FST")	\$ 12,364	21.3% \$	12,625	32.1% \$	(\$261)	(2.1%)
POS automation	10,659	18.3%	4,825	12.2% \$	5,834	120.9%
Casino and gaming	30,029	51.7%	15,302	38.9% \$	14,727	96.2%
Printrex	-	-	631	1.6% \$	(631)	(100.0%)
TSG	 5,087	8.7%	6,003	15.2% \$	(916)	(15.3%)
	\$ 58,139	100.0% \$	39,386	100.0% \$	\$18,753	47.6%

Sales of our food service technology products remained relatively flat (decreasing 2%) in the year ended December 31, 2022 compared to the year ended December 31, 2021. In the food service technology market, we focus on providing hardware products, which include terminals/WorkStations, temperature probes, temperature sensors and gateways in addition to cloud-based software applications, labels and other recurring revenue items. Food service technology sales decreased in 2022 primarily due to a 30% decrease in FST hardware sales to one of our largest customers. Our total installed base increased by 2,362 terminals and WorkStations during 2022 resulting in a total installed base of 12,180 terminals at the end of 2022. This was partially offset by record sales and an 18% increase in BOHA! recurring revenue. Recurring revenue increased 18% primarily due to higher label sales, as well as record sales of BOHA! software (largely from our labeling software application) recognized on a SaaS subscription basis due principally to the continued growth of the installed base of our BOHA! Terminals and WorkStations.

Sales of our POS automation products increased 121% in the year ended December 31, 2022 compared to the year ended December 31, 2021. In the POS automation market, we focus primarily on supplying printers that print receipts or linerless labels to customers in the restaurant and quick serve markets. During the year ended December 31, 2022, sales of our Ithaca 9000 printer benefitted from market share gain resulting from a competitor's supply chain issues, as well as a special project for our largest customer. Sales in 2021 were unusually low due to the significant negative impact of the COVID-19 pandemic on the POS automation market.

Sales of our casino and gaming products increased 96% in 2022 compared to 2021. In our casino and gaming market, our focus lies primarily in supplying printers worldwide for use in slot machines at casinos and racetracks, as well as in other electronic gaming devices that print tickets or receipts. Additionally, we supplement these printer sales with revenue from EPICENTRAL which is our promotional printing system that enables casino operators to create promotional coupons and marketing messages and print them in real time at the slot machine. The increase of casino and gaming printers was due to the recovery of the domestic and international casino and gaming market during 2022 as well as our expanding market share, as our largest competitor experienced supply chain issues and casinos continued to reopen compared to 2021 when the market was severely impacted by the COVID-19 pandemic and the related closures of casinos.

Sales of our Printrex branded printers included wide format, rack-mounted and vehicle-mounted thermal printers used by customers to log and plot oil field and down hole well drilling data in the oil and gas exploration industry. There were no Printrex sales in 2022 as we fulfilled last buy orders to legacy customers during the fourth quarter of 2021 and exited this market as of December 31, 2021 to focus towards our higher value, technology-enabled food service technology terminals and casino and gaming products.

TSG, which sells service, replacement parts and consumable products, including receipt paper, ribbons and other printing supplies for our non-FST products, continues to offer a recurring revenue stream from mostly our legacy products. TSG sales decreased 15% in 2022 compared to 2021, primarily due to declining service revenue from a legacy banking customer whose service contract ended during 2022, as well as lower replacement part and consumable product sales.

Operationally, our gross margin rose to 42.0% in 2022, an increase of 290 basis points from 39.1% in 2021, due largely to higher volume of sales overall of our gaming and casino printers which have a higher margin, partially offset by higher material and shipping costs resulting from worldwide supply disruptions.

During 2022, our operating margin improved to (13.2%) compared to (23.8%) in 2021 as the 48% increase in sales helped increase gross margin by 290 basis points, offset by an increase of \$7.3 million of operating expenses. Operating expenses increased by 30% as we gradually returned to more normalized pre-COVID-19 spending levels.

We reported a net loss of \$5.9 million and a net loss per diluted share of \$0.60 for 2022, compared to a net loss of \$4.0 million and net loss per diluted share of \$0.43 for 2021. In terms of cash flow, for 2022 we used \$12.2 million of cash in operating activities. We ended the year with cash and cash equivalents of \$7.9 million and we had \$2.3 million of outstanding borrowings under the Siena Credit Facility on our Consolidated Balance Sheet at December 31, 2022.

Critical Accounting Estimates

The preparation of financial statements in conformity with generally accepted accounting principles ("GAAP") requires management to make use of estimates, judgments and assumptions that affect both Balance Sheet items and Statement of Operations categories. Such estimates and judgments are based upon historical experience and certain assumptions that are believed to be reasonable in the particular circumstances; however, due to the inherent uncertainties in developing estimates, actual results could differ from the original estimates, requiring adjustments to these balances in future periods.

The following accounting policies are those that we believe to be most critical in the preparation of our financial statements. These items utilize assumptions and estimates about the effect of future events that are inherently uncertain and are therefore based on our judgment. Refer to Note 2 - Summary of significant accounting policies in the accompanying Consolidated Financial Statements for a complete listing of our significant accounting policies.

Revenue Recognition – Application of GAAP related to the measurement and recognition of revenue requires us to make judgments and estimates. Specifically, the determination of whether revenues related to our revenue contracts should be recognized over time or at a point in time. Other significant judgments include contracts that contain multiple performance obligations (most commonly when contracts include a hardware product, software, financing and extended warranties) which require a contract's transaction price to be allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied. Both of these determinations impact the timing and amount of our reported revenues and net income and loss.

Accounts Receivable – We have standardized credit granting and review policies and procedures for all customer accounts, including: credit reviews of all new customer accounts; ongoing credit evaluations of current customers; credit limits and payment terms based on available credit information; and adjustments to credit limits based upon payment history and the customer's current creditworthiness. We also provide an estimate of doubtful accounts based on historical experience and specific customer collection issues. Our allowance for doubtful accounts as of December 31, 2022 was \$351 thousand, or 2.5% of outstanding accounts receivable, which we believe is appropriate considering the overall quality of our accounts receivable. Although credit losses have historically been within expectations and the reserves established, there is no assurance that our credit loss experience will continue to be consistent with historical experience.

Inventories – Our inventories are stated at the lower of average cost or net realizable value. We review net realizable value based on estimated selling prices in the ordinary course of business less estimated costs of completion, disposal and transportation, historical usage and estimates of future demand. Assumptions are reviewed at least quarterly and adjustments are made, as necessary, to reflect changing market conditions. Based on these reviews, inventory write-downs are recorded, as necessary, to reflect estimated obsolescence, excess quantities and net realizable value. Should circumstances change and we determine that additional inventory is subject to obsolescence, additional write-downs of inventory could result in a charge to income.

Effective April 1, 2022, TransAct changed its method of inventory valuation from standard costing which approximated the "first-in, first-out" ("FIFO") costing methodology to the average costing methodology. We believe this methodology is preferable because it reflects a better estimate of inventory cost as we do not typically perform intensive manufacturing of our finished products, which are therefore better measured under average cost. In addition, our business is projected to include an increasing sales volume of software going forward, which better aligns with average costing. See Note 16 for further details.

Goodwill and Intangible Assets – We acquire businesses in purchase transactions that result in the recognition of goodwill and intangible assets. The determination of the value of intangible assets requires management to make estimates and assumptions. In accordance with ASC 350-20 "Goodwill," acquired goodwill is not amortized but is subject to impairment testing at least annually and when an event occurs or circumstances change that indicate it is more likely than not an impairment exists. We perform a fair value-based impairment test to the carrying value of goodwill and indefinite-lived intangible assets on an annual basis and, if certain events or circumstances indicate that an impairment loss may have been incurred, on an interim basis. The Company utilizes the option to first assess qualitative factors to determine whether it is necessary to perform the Step 1 quantitative goodwill impairment test in accordance with the applicable accounting standards. Under the qualitative assessment, management considers relevant events and circumstances including, but not limited to, macroeconomic conditions, industry and market considerations, Company performance, and events directly affecting the Company. If the Company determines that the Step 1 quantitative impairment test is required, management estimates the fair value of the reporting unit primarily using the income approach, which reflects management's cash flow projections, and also evaluates the fair value using the market approach. Factors considered that may trigger an interim period impairment review of either acquired goodwill or intangible assets are: significant underperformance relative to expected historical or projected future operating results; significant changes in the manner of use of acquired assets or the strategy for the overall business; significant negative industry or economic trends; and significant decline in market capitalization relative to net book value. Finite lived intangible assets are amortized and are tested for impairment whe

As of December 31, 2022, upon the completion of our annual assessment for impairment, we have determined that no goodwill or intangible asset impairment has occurred and the fair value of the Company was substantially higher than our carrying value.

We have evaluated the recoverability of the assets on our Consolidated Balance Sheet as of December 31, 2022 in accordance with relevant authoritative accounting literature. We have considered the effects caused by the COVID-19 pandemic, the global supply chain disruptions, inflation and macroeconomic factors potentially impacting accounts receivable, inventory, investments, intangible assets, goodwill and other assets and liabilities. Where forward-looking estimates are required, we made a good-faith estimate based on information available as of the balance sheet date. We have continued to monitor for indicators of impairment through the date of this Annual Report on Form 10-K and reflected accordingly in the accompanying consolidated financial statements.

Income Taxes – In preparing our Consolidated Financial Statements, we are required to estimate income taxes in each of the jurisdictions in which we operate. This involves estimating the actual current tax exposure together with assessing temporary differences between the tax basis of certain assets and liabilities and their reported amounts in the financial statements, as well as net operating losses, tax credits and other carryforwards. These differences result in deferred tax assets and liabilities, which are reflected in our Consolidated Balance Sheets. We then assess the likelihood that the deferred tax assets will be realized from future taxable income, and to the extent that we believe that realization is not likely, we establish a valuation allowance.

Significant judgment is required in determining the provision for income taxes and, in particular, any valuation allowance or tax reserves with respect to our deferred tax assets and uncertain tax positions. On a quarterly basis, we evaluate the recoverability of our deferred tax assets based upon historical results and forecasted taxable income over future years, and match this forecast against the basis differences, deductions available in future years and the limitations allowed for net operating loss and tax credit carryforwards to ensure that there is adequate support for the realization of the deferred tax assets. Although we have considered future taxable income and ongoing prudent and feasible tax planning strategies in assessing the need for a valuation allowance, in the event we were to determine that we would not be able to realize all or part of our deferred tax assets in the future, an adjustment to the valuation allowance or tax reserves would be charged as a reduction to income in the period such determination was made. Likewise, should we determine that we would be able to realize future deferred tax assets in excess of its net recorded amount, an adjustment to the valuation allowance would increase net income in the period such determination was made.

We account for income taxes in accordance with ASC 740, "Income Taxes" ("ASC 740"). Among other things this provision prescribes a minimum recognition threshold that an income tax position must meet before it is recorded in the reporting entity's financial statements. It also requires that the effects of such income tax positions be recognized only if, as of the balance sheet reporting date, it is "more likely than not" (i.e., more than a 50% likelihood) that the income tax position will be sustained based solely on its technical merits. When making this assessment, management must assume that the responsible taxing authority will examine the income tax position and have full knowledge of all relevant facts and other pertinent information. The accounting guidance also clarifies the method of accruing for interest and penalties when there is a difference between the amount claimed, or expected to be claimed, on a company's income tax returns and the benefits recognized in the financial statements.

Share-Based Compensation – We calculate share-based compensation expense in accordance with ASC 718, "Compensation – Stock Compensation" using the Black-Scholes option-pricing model to calculate the fair value of share-based awards. The key assumptions for this valuation method include the expected term of an option grant, stock price volatility, risk-free interest rate, and dividend yield. We account for forfeitures as they occur.

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Results of Operations: Year Ended December 31, 2022 Compared to Year Ended December 31, 2021

Net Sales. Net sales, which include printer, terminal and software sales as well as sales of replacement parts, consumables and maintenance and repair services, by market for the years ended December 31, 2022 and 2021 are detailed in the below table.

	Year Ended		Year En	ided		
(In thousands, except percentages)	 December 31, 2	022	 December 3	31, 2021	 \$ Change	% Change
Food service technology	\$ 12,364	21.3%	\$ 12,625	32.1%	\$ (\$261)	(2.1%)
POS automation	10,659	18.3%	4,825	12.2%	\$ 5,834	120.9%
Casino and gaming	30,029	51.7%	15,302	38.9%	\$ 14,727	96.2%
Printrex	-	-	631	1.6%	\$ (631)	(100.0%)
TSG	 5,087	8.7%	 6,003	15.2%	\$ (916)	(15.3%)
	\$ 58,139	100.0%	\$ 39,386	100.0%	\$ \$18,753	47.6%
International*	\$ 14,105	24.3%	\$ 6,986	17.7%	\$ \$7,119	101.9%

* International sales do not include sales of products to domestic distributors or other customers who in turn ship those products to international destinations.

Net sales for 2022 increased \$18.8 million, or 48%, from 2021. Printer, terminal and other hardware sales volume increased by 63% to approximately 134,000 units for 2022, driven by large unit volume increases in all casino and gaming and POS automation, partially offset by unit volume declines in FST and Printrex (the oil and gas market which we exited in 2021). The primary volume increases were an 80% increase in unit volume from the casino and gaming market, as the casino market continued to rebound from the impact of COVID-19 shutdowns and our market share increased due to our efforts to navigate supply chain restraints that prevented certain other suppliers from fully meeting customer demand and, to a lesser extent, a 60% unit volume increase in our POS automation market. We experienced a 32% decrease in hardware unit volume from the FST market, driven by a year-over-year reduction in sales from a large convenience store. The average selling price of our printers, terminals and other hardware increased 4% during 2022 compared to 2021, mainly due to price increases instituted during 2022 in response to product cost increases related to supply chain issues. Additionally, sales of our software, labels and other recurring revenue from our FST market increased \$1.3 million, or 18%, during 2022 compared to 2021. International sales for 2022 increased \$7.1 million, or 102%, compared to 2022, primarily due to a 141% increase in international casino and gaming sales due to unit volume increases noted above, partially offset by increased materials and shipping costs in the face of global supply chain disruptions.

Food service technology. Our primary offering in the food service technology market is our line of BOHA! products, which can combine our latest generation terminal and workstation which includes one or two printers and our BOHA! Labeling, timers, and media software. In addition, customers may individually purchase cloud-based software applications that connect to a separate application on a separate mobile device into a solution to automate backof-house operations in restaurants, convenience stores and food service operations. The additional software offering of BOHA! consists of a variety of individually purchased software-as-a-service ("SaaS")-based applications for both Android and iOS operating systems, including applications for, temperature monitoring, temperature taking and checklists and task lists. These applications are sold separately, and customers purchase the applications they need for their back-of-house operations. Customers may also purchase associated hardware, such as handheld devices, tablets, temperature probes and temperature sensors and gateways. The BOHA! Terminal combines an operating system and hardware components in a device that includes a touchscreen and one or two thermal print mechanisms that print easy-to-read food rotation labels, grab-and-go labels, and nutritional labels for prepared foods, and "enjoy by" date labels. The BOHA! WorkStation uses an iPad or Android tablet instead of an integrated touchscreen. The BOHA! Terminal and the BOHA! WorkStation are equipped with the TransAct Enterprise Management System to ensure that only approved touchscreen functions are available on the touchscreen device and to allow over-the-air updates to the operating system. BOHA! helps food service establishments and restaurants (including fine dining, casual dining, fast casual and quick-service restaurants, convenience stores, hospitality establishments and contract food service providers) effectively manage food safety and grab-and-go initiatives, as well as automate and manage back-of-house operations. Recurring revenue from BOHA! is generated by software sales, including software subscriptions that are typically charged to customers annually on a per-application basis, as well as sales of labels, extended warranty and service contracts, and technical support services. Sales of our worldwide food service technology products for the years ended December 31, 2022 and 2021 were as follows:

(In thousands, except percentages)	_	Year Er December 3			Ended r 31, 2021	\$ Change	% Change
Domestic	\$	11,602	93.8%	\$ 11,738	93.0%	\$ (136)	(1.2%)
International		762	6.2%	887	7.0%	(125)	(14.1%)
	\$	12,364	100.0%	\$ 12,625	100.0%	\$ (261)	(2.1%)

	Year Ended		Year Ended			
(In thousands, except percentages)	 December 31, 20)22	December 31, 2021		 \$ Change	% Change
Hardware	\$ 3,653	29.5%	\$ 5,226	41.4%	\$ (1,573)	(30.1%)
Software, labels and other recurring						
revenue	 8,711	70.5%	7,399	58.6%	 1,312	17.7%
	\$ 12,364	100.0%	\$ 12,625	100.0%	\$ (261)	2.1%

Sales in food service technology decreased 2.1% in 2022 compared to 2021. This was driven by a decrease in sales of hardware, partially offset by an increase in BOHA! software, labels and other recurring revenue. Hardware sales decreased 30% during 2022 compared to 2021 due largely to a reduction in sales to a large retail customer. Recurring revenue increased 18% primarily due to higher label sales, as well as record sales Of BOHA! software (largely from our labeling software application) recognized on a SaaS subscription basis due principally to the continued growth of the installed base of our BOHA! Terminals and WorkStations.

We expect FST revenue to be higher in 2023 than in 2022 as we continue to grow our installed base of paid terminals and the related recurring revenue (primarily the sale of labels and subscription software revenue from our labeling software application).

POS automation. Revenue from the POS automation market includes sales of our Ithaca 9000 thermal printer used primarily by McDonald's and other quick-service restaurants located either at the checkout counter or within self-service kiosks to print receipts for consumers or print liner-less labels. Sales of our worldwide POS automation products for the years ended December 31, 2022 and 2021 were as follows:

	Year E	nded	Year Ended			
(In thousands, except percentages)	 December	31, 2022	 December 31, 20)21	\$ Change	% Change
Domestic	\$ 10,657	100.0%	\$ 4,817	99.8%	5,840	121.2%
International	 2	_	 8	0.2%	(6)	(75.0%)
	\$ 10,659	100.0%	\$ 4,825	100.0%	5,834	120.9%

The increase in POS automation product revenue during 2022 compared to 2021 was driven by a 121% increase in sales of our Ithaca® 9000 printer, primarily to McDonald's, as we benefited from market share gains resulting from a competitor's supply chain issues as well as a special project for McDonald's that utilized our printer. Sales for 2021 were unusually low due to the significant negative impact from the COVID-19 pandemic on POS automation sales during 2021. Due to the completion of the special project in 2022, we expect POS automation sales to be lower in 2023 compared to 2022.

Casino and gaming. Revenue from the casino and gaming market includes sales of thermal ticket printers used in slot machines, video lottery terminals, and other gaming machines that print tickets or receipts instead of issuing coins at casinos, racetracks and other gaming venues worldwide. Revenue from this market also includes sales of thermal roll-fed printers used in the international off-premise gaming market in gaming machines such as Amusement with Prizes, Skills with Prizes and Fixed Odds Betting Terminals and kiosks for sports betting at non-casino gaming and sports betting establishments. Revenue from this market also includes royalties related to our patented casino and gaming technology. In addition, casino and gaming market revenue includes sales of the EPICENTRAL print system, our software solution (including annual software maintenance), that enables casino operators to create promotional coupons and marketing messages and to print them in real time at the slot machine. Sales of our worldwide casino and gaming products for the years ended December 31, 2022 and 2021 were as follows:

	Year E	nded	Year Ei	nded		
(In thousands, except percentages)	 December	31, 2022	 December 3	31, 2021	\$ Change	% Change
Domestic	\$ 17,686	58.9%	\$ 10,173	66.5%	\$ 7,513	73.9%
International	 12,343	41.1%	 5,129	33.5%	7,214	140.7%
	\$ 30,029	100.0%	\$ 15,302	100.0%	\$ 14,727	96.2%

The increase in domestic sales of our casino and gaming products during 2022 compared to 2021 was primarily due to a 74% increase in domestic sales of our thermal casino printers, as our business experienced a strong recovery from the COVID-19 pandemic during 2022 compared to 2021 and we increased our overall market share due largely to our largest competitor's inability to supply product due to supply chain issues. The overall increase in casino and gaming domestic sales was also driven by a 410% increase in domestic EPICENTRAL sales during 2022 as we completed several EPICENTRAL installations/expansions during 2022. EPICENTRAL sales are project based, and as a result, may fluctuate significantly quarter-to-quarter and year-to-year.

International sales of our casino and gaming products increased during 2022 compared to 2021, primarily due to a 155% increase in sales of our thermal casino printers. Similar to the domestic market, we experienced significant recovery during 2022 from the COVID-19 pandemic in the international gaming markets and increased our market share due largely to our competitor's inability to supply product due to supply chain issues. The substantial increase in international gaming sales was predominantly driven by the European and Australian markets while the Asian market still remained negatively impacted from the COVID-19 pandemic.

We expect both domestic and international sales of our casino printers to continue to be strong and higher in 2023 as compared to 2022 as we work to fulfil our large backlog of orders and continue to capitalize on our increasing market share in the industry.

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Printrex: Printrex branded printers were sold into markets that include wide format, desktop and rack-mounted and vehicle-mounted black/white thermal printers used by customers to log and plot oil field, seismic and down hole well drilling data in the oil and gas exploration industry. Sales of our worldwide Printrex printers for the years ended December 31, 2022 and 2021 were as follows:

	Year Ended		Year Ended			
(In thousands, except percentages)	 December 31, 2022		 December 31, 2021	L	\$ Change	% Change
Domestic	\$ -	0.0%	\$ 171	27.1%	\$ (171)	100.0%
International	 -	0.0%	 460	72.9%	(460)	100.0%
	\$ -	0.0%	\$ 631	100.0%	\$ (631)	100.0%

We made a strategic decision to exit the Printrex market as of December 31, 2021 and have had no sales, and expect to have no future sales in this market beyond 2021.

TSG: Revenue generated by TSG includes sales of consumable products (POS receipt paper, inkjet cartridges, ribbons and other printing supplies for non-FST legacy products), replacement parts and accessories, maintenance and repair services, refurbished printers, and shipping and handling charges. Sales in our worldwide TSG market for the years ended December 31, 2022 and 2021 were as follows:

	Year End	led	Year Ende	ed		
(In thousands, except percentages)	 December 31	, 2022	 December 31,	2021	\$ Change	% Change
Domestic	\$ 4,089	80.4%	\$ 5,501	91.6%	\$ (1,412)	(25.7%)
International	 998	19.6%	 502	8.4%	496	98.8%
	\$ 5,087	100.0%	\$ 6,003	100.0%	\$ (916)	(15.3%)

The decrease in domestic revenue from TSG during 2022 as compared to 2021 on significantly lower legacy lottery printer part sales was due primarily to lower sales of replacement parts. Replacement part sales decreased 34%. Service revenue and consumable sales also declined 8% and 19%, respectively.

Internationally, TSG revenue increased during 2022 compared to 2021, due primarily to a 136% increase in sales of replacement parts and accessories to international casino and gaming customers.

We expect TSG sales for 2023 to be higher than 2022.

Gross Profit. Gross profit information for the years ended December 31, 2022 and 2021 is summarized below (in thousands, except percentages):

Year Ended December 31,		: 31,	Percent	Percent of	Percent of	
	2022	_	2021	Change	Total Sales - 2022	Total Sales - 2021
\$	24,412	\$	15,382	58.7%	42.0%	39.1%

Gross profit is measured as revenue less cost of sales, which includes primarily the cost of all raw materials and component parts, direct labor, manufacturing overhead expenses, cost of finished products purchased directly from our contract manufacturers, expenses associated with installations and support of our EPICENTRAL print system and our line of BOHA! products and royalty payments to third-parties, including to the third party licensor of our food service technology software products. Gross profit increased \$9.0 million, or 59%, in 2022 compared to 2021, primarily due to the 48% sales increase in 2022 compared to 2021. Gross margin increased to 42.0% in 2022 compared to 39.1% in 2021 due largely to a favorable change in product sales mix and the effect from two rounds of price increases we instituted during 2022 to mitigate higher product and shipping costs related to the worldwide supply chain disruptions.

Operating Expenses - **Engineering, Design and Product Development.** Engineering, design and product development information for the years ended December 31, 2022 and 2021 is summarized below (in thousands, except percentages):

Year Ended December 31,			31,	Percent	Percent of	Percent of
	2022		2021	Change	Total Sales - 2022	Total Sales - 2021
\$	8,570	\$	7,475	14.6%	14.7%	19.0%

Engineering, design and product development expenses primarily include salary and payroll-related expenses for our hardware and software engineering staff, depreciation and design expenses (including prototype printer expenses, outside design, development and testing services, supplies and contract software development expenses including those to the third party licensor of our food service technology software products). Engineering, design and product development expenses increased \$1.1 million, or 15%, in 2022 compared to 2021 resulting from an increase in expenses related to reconfiguring unavailable parts and qualifying new parts, as well as a gradual return to more normalized pre-COVID-19 spending levels and from the full effect (in 2022) of hiring additional software developers in late 2021 to continue development of our food service technology products.

Operating Expenses - **Selling and Marketing.** Selling and marketing information for the years ended December 31, 2022 and 2021 is summarized below (in thousands, except percentages):

Year Ended December 31,			31,	Percent	Percent of	Percent of
	2022	_	2021	Change	Total Sales - 2022	Total Sales - 2021
\$	11,326	\$	7,658	47.9%	19.5%	19.4%

Selling and marketing expenses primarily include salaries and payroll-related expenses for our sales, marketing and customer success staff, sales commissions, travel expenses, expenses associated with the lease of sales offices, advertising, trade show expenses, public relations, e-commerce and other promotional marketing expenses. Selling and marketing expenses increased \$3.7 million, or 48%, during 2022 compared to 2021 primarily due to higher trade show expenses, expanded marketing expenses as we returned to more normalized pre-COVID-19 levels of sales and marketing expense during 2022 compared to lower costs during 2021 due to cost saving measures implemented during 2020 that carried into 2021, payroll expenses for the expanded sales and marketing staff and increased commissions on higher sales in the casino and gaming market.

Operating Expenses - General and Administrative. General and administrative information for the years ended December 31, 2022 and 2021 is summarized below (in thousands, except percentages):

Year Ended December 31,			31,	Percent	Percent of	Percent of
	2022		2021	Change	Total Sales - 2022	Total Sales - 2021
\$	12,193	\$	9,626	26.7%	21.0%	24.4%

General and administrative expenses primarily include salaries, incentive compensation, and other payroll-related expenses for our executive, accounting, human resources, business development and information technology staff, expenses for our corporate headquarters, professional and legal expenses, information technology expenses, and other expenses related to being a publicly traded company. General and administrative expenses increased \$2.6 million, or 27%, during 2022 compared to 2021 due to higher recruiting fees and employee compensation, as well as higher consulting fees and depreciation related to the implementation of a new ERP system that we completed in early 2022. Legal fees also increased year-over-year related to a shareholder matter that was resolved on March 30, 2022 when we entered into a Cooperation Agreement with two shareholders.

Operating Loss. Operating loss information for the years ended December 31, 2022 and 2021 is summarized below (in thousands, except percentages):

Year Ended December 31,		31,	Percent	Percent of	Percent of	
	2022		2021	Change	Total Sales – 2022	Total Sales – 2021
\$	(7,677)	\$	(9,377)	(18.1%)	(13.2%)	(23.8%)

Our operating loss decreased \$1.7 million, or 18%, during 2022 compared to 2021 as a \$9.0 million, or 59% increase in gross profit on 48% higher sales was largely offset by a \$7.3 million or 30% increase in operating expenses during 2022 compared to 2021.

Interest, net. We recorded net interest expense of \$208 thousand in 2022 compared to \$96 thousand in 2021. The increase in net interest expense was primarily due to lower interest income earned from the note receivable to a third party software developer that was collected in March 2021. Interest expense also increased during 2022 and we expect will continue to increase during 2023 due to required minimum borrowings pursuant to the terms of the July 2022 Siena Credit Facility Amendment No. 2 along with expected interest rate increases in the broader financial markets.

Other, net. We recorded other expense of \$16 thousand in 2022 compared to other expense of \$283 thousand in 2021 primarily due to higher foreign exchange losses recorded by our UK subsidiary during 2021. Going forward, we may continue to experience more foreign exchange gains or losses depending on the level of sales to European customers through our UK subsidiary and the fluctuation in exchange rates of the Euro and Pound Sterling against the U.S. Dollar, which may be impacted by volatility in global economic conditions and political instability such as the Russia-Ukraine conflict.

Gain from Employee Retention Credit. We recorded a \$1.5 million gain during 2021 resulting from the recognition of the employee retention credit pursuant to the CARES Act upon meeting the conditions required to claim the credit.

Gain on Forgiveness of Long-Term Debt. We recorded a \$2.2 million gain in 2021 resulting from the forgiveness of the PPP Loan in July 2021.

Income Taxes. We recorded an income tax benefit during 2022 of \$2.0 million at an effective tax rate of 24.9%, compared to an income tax benefit during 2021 of \$2.0 million at an effective tax rate of 33.6%. The tax benefit recorded for 2021 was higher as it included the recognition of the gain on the forgiveness of the PPP Loan which was not taxable.

Net Loss. We reported a net loss for the year ended December 31, 2022 of \$5.9 million, or \$0.60 per basic and diluted share, compared to a net loss of \$4.0 million, or \$0.43 per basic and diluted share, in 2021.

Liquidity and Capital Resources

We assess our liquidity in terms of our ability to generate cash to fund our operating, investing and financing activities. Significant factors affecting the management of liquidity are cash flows from operating activities, capital expenditures, access to bank lines of credit and our ability to attract long-term capital with satisfactory terms.

Internal cash generation together with currently available cash and cash equivalents, available borrowing facilities and an ability to access credit lines at market-competitive rates, if needed, are expected to be sufficient to fund operations, capital expenditures, and any increase in working capital that would be required to accommodate a higher level of business activity for the 2023 fiscal year and beyond.

Cash Flow

During 2022, our cash balance decreased \$11.5 million (versus an increase of \$9.1 million in 2021) due primarily to operating activities, including an increase in inventories of \$4.4 million to support the growing demand of our products and an increase of \$6.4 million in receivables, reflecting stronger sales in 2022. We had \$7.9 million in cash and cash equivalents as of December 31, 2022, of which \$219 thousand was held by our UK subsidiary.

Operating activities: The following significant factors primarily affected our cash used in operating activities of \$12.2 million in 2022 as compared to cash used in operating activities of \$2.5 million in 2021.

During 2022:

- We reported a net loss of \$5.9 million.
- We recorded depreciation and amortization of \$1.3 million and share-based compensation expense of \$1.2 million.
- We recorded an increase in our deferred tax assets of \$2.2 million due to our net loss in 2022.
- Accounts receivable increased \$6.4 million primarily due to increased sales volume during the fourth quarter of 2022.
- Inventories increased \$4.4 million primarily due to strategic purchases of electronic and other parts to support our sales growth.
- Accounts payable provided \$3.2 million in cash due to increased inventory purchases and the timing of cash disbursements.

During 2021:

- We reported a net loss of \$4.0 million.
- We recorded depreciation and amortization of \$1.0 million and share-based compensation expense of \$1.2 million.
- We recorded a gain of \$2.2 million from the forgiveness of the PPP loan.
- Accounts receivable increased \$4.2 million, or 125%, primarily due to increased sales volume during the fourth quarter of 2021.
- We recorded a receivable of \$1.5 million for the employee retention credit.
- Inventories decreased \$3.4 million primarily due to the utilization of inventory on hand to fulfill sales and significantly reduced inventory purchases resulting from the supply chain disruptions caused by the COVID-19 pandemic.
- Prepaid income taxes decreased \$2.2 million due to receiving an income tax refund in 2021 related to the net operating loss reported for 2020 that
 was carried back to prior years as permitted by the CARES Act.
- Accounts payable increased \$2.5 million, or 150%, due to inventory purchases made towards the end of the fourth quarter of 2021 to support expected 2022 sales.
- Accrued liabilities and other liabilities increased \$0.6 million, or 7%, due primarily to increased deferred revenue.

Investing activities: Our capital expenditures were \$1.3 million and \$1.4 million in 2022 and 2021, respectively. Expenditures in both 2022 and 2021 were primarily related to the implementation of a new ERP system which was completed in early 2022, new product tooling and computer and networking equipment. Investing activities also provided \$1.6 million in 2021 upon the collection of the remaining \$1.6 million note receivable balance during the first quarter of 2021 from an unaffiliated third party software developer from whom we license our food service technology software.

Financing activities: Financing activities provided \$2.1 million of cash during 2022 due primarily to required minimum borrowing on our Siena Credit Facility. During 2021, financing activities provided \$11.5 million of cash primarily from the completion of an underwritten public offering which raised net proceeds of \$11.2 million, after deducting underwriting discounts, commissions and offering expenses and, to a lesser extent, proceeds of \$0.4 million from stock option exercises.

Resource Sufficiency

Since early 2020, the COVID-19 pandemic has continued to cause uncertainty and disruption in the global economy and financial markets. We have also been impacted by global supply chain issues, increased shipping costs and inflationary pressures. Given the unprecedented uncertainty related to the impact of these external factors on the food service and casino industries, the Company continues to monitor its cash generation, usage and preservation including the management of working capital to generate cash.

We believe that our cash and cash equivalents on hand, our expected cash flows generated from operating activities, and borrowings available under our Siena Credit Facility will provide sufficient resources to meet our working capital needs, finance our capital expenditures and meet our liquidity requirements through at least the next twelve months. Notwithstanding this belief, the duration and extent of these global economic pressures and the future of pandemic variants remain uncertain and the ultimate impact of these global pressures is unknown.

Credit Facility and Borrowings

On March 13, 2020, we entered into the Loan and Security Agreement (the "Siena Credit Facility") with Siena Lending Group LLC (the "Lender") and terminated our credit facility with TD Bank N.A. The Siena Credit Facility provides for a revolving credit line of up to \$10.0 million and was originally scheduled to expire on March 13, 2023. Borrowings under the Siena Credit Facility bear a floating rate of interest equal to the greatest of (i) the prime rate plus 1.75%, (ii) the federal funds rate plus 2.25%, and (iii) 6.50%. The total deferred financing costs related to expenses incurred to complete the Siena Credit Facility were \$245 thousand. We also pay a fee of 0.50% on unused borrowings under the Siena Credit Facility. Borrowings under the Siena Credit Facility are secured by a lien on substantially all the assets of the Company. Borrowings under the Siena Credit Facility are subject to a borrowing base based on (i) 85% of eligible accounts receivable plus the lesser of (a) \$5.0 million and (b) 50% of eligible raw material and 60% of finished goods inventory.

The Siena Credit Facility imposes a financial covenant on the Company and restricts, among other things, our ability to incur additional indebtedness and the creation of other liens. The three-month period from April 1, 2020 to June 30, 2020 was the first period we were subject to the original financial covenant, which required the Company to maintain a minimum EBITDA and continued through the 12-month period from April 1, 2020 to March 31, 2021. On July 21, 2021, the Company entered into an amendment ("Siena Credit Facility Amendment No. 1") to the Siena Credit Facility. Siena Credit Facility Amendment No. 1 changed the financial covenant under the Siena Credit Facility from a minimum EBITDA covenant to an excess availability covenant requiring that the Company maintain excess availability of at least \$750 thousand under the Siena Credit Facility, tested as of the end of each calendar month, beginning with the calendar month ended July 31, 2021. From July 31, 2021 through December 31, 2022, we have been in compliance with our excess availability covenant. As of December 31, 2022, we had \$2.3 million in outstanding borrowings under the Siena Credit Facility and \$3.9 million of net available borrowing capacity under the Siena Credit Facility.

On July 19, 2022, the Company and the Lender entered into Amendment No. 2 ("Siena Credit Facility Amendment No. 2") to the Siena Credit Facility as amended by Siena Credit Facility Amendment No. 1. Also on July 19, 2022, the Company and the Lender entered into an Amended and Restated Fee Letter (the "Amended Fee Letter") in connection with Siena Credit Facility Amendment No. 2. Siena Credit Facility Amendment No. 2 did not modify the aggregate amount of the revolving commitment or the interest rate applicable to the loans.

The changes to Siena Credit Facility provided for in Siena Credit Facility Amendment No. 2 included, among other things, the following:

- (i) The extension of the maturity date from March 13, 2023 to March 13, 2025; and
- (ii) The termination of the existing blocked account control agreement and entry into a new "springing" deposit account control agreement, permitting the Company to direct the use of funds in its deposit account until such time as (a) the sum of excess availability under the Siena Credit Facility and unrestricted cash is less than \$5 million for 3 consecutive business days or (b) an event of default occurs and is continuing.

In addition, the Amended Fee Letter requires the Company, while it retains the ability to direct the use of funds in the deposit account, to maintain outstanding borrowings of at least \$2,250,000 in principal amount. If the Company does not have the ability to direct the use of funds in the deposit account, then the Amended Fee Letter requires the Company to pay interest on at least \$2,250,000 principal amount of loans, whether or not such amount of loans is actually outstanding.

On May 1, 2020 (the "Loan Date"), the Company was granted the PPP Loan from Berkshire Bank in the aggregate amount of \$2.2 million, pursuant to the PPP which is administered by the SBA and was established under Division A, Title I of the CARES Act, enacted March 27, 2020. Under the terms of the PPP, the PPP Loan would be forgiven to the extent that funds from the PPP Loan were used for payroll costs and costs to continue group health care benefits, as well as for interest on mortgage obligations incurred before February 15, 2020, rent payments under lease agreements in effect before February 15, 2020, utilities for which service began before February 15, 2020 and interest on debt obligations incurred before February 15, 2020, subject to conditions and limitations provided in the CARES Act. At least 60% (under the PPP terms, as amended) of the proceeds of the PPP Loan needed to have been used for eligible payroll costs for the PPP Loan to be forgiven.

On July 8, 2021, the Company received notifications from Berkshire Bank and the SBA that its PPP Loan (including all interest accrued thereon) of \$2.2 million had been fully forgiven by the SBA and that the forgiveness payment date was July 1, 2021. The forgiveness of the PPP Loan was reported as "Gain on forgiveness of long-term debt" in the Consolidated Statement of Operations during the year ended December 31, 2021.

Stock Repurchase Program

During 2022 and 2021, we did not repurchase any shares of our common stock.

Shareholders' Equity

Shareholders' equity decreased \$5.1 million, or 13%, to \$33.9 million at December 31, 2022 from \$39.0 million at December 31, 2021. The decrease was primarily due to the net loss of \$5.9 million in 2022. This was partially offset by share-based compensation expense related to stock awards of \$1.0 million (net of withholding taxes paid by relinquishment of shares) in 2022.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk.

TransAct is a smaller reporting company, as defined in Item 10(f)(1) of Regulation S-K, and is not required to provide information under this item.

Item 8. Financial Statements and Supplementary Data.

The financial statements of the Company are annexed to this Form 10-K as pages F-4 through F-22. The "Report of Independent Registered Public Accounting Firm" is annexed to this Form 10-K as of page F-2. An index to such materials appears on page F-1.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

Not applicable.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), evaluated the effectiveness of our disclosure controls and procedures, as defined in Rule 13a-15 under the Securities Exchange Act of 1934, as amended (the "Exchange Act") as of December 31, 2022. Our management, including our CEO and CFO, has concluded that our consolidated financial statements, included in this Form 10-K, fairly present, in all material respects, our financial condition, results of operations and cash flows for the periods presented in conformity with generally accepted accounting principles, and that they can be relied upon.

Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rule 13a-15(f) under the Exchange Act, to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

Our management assessed our internal control over financial reporting as of December 31, 2022. Our management based its assessment on criteria established in *Internal Control–Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("2013 COSO"). In the opinion of management, TransAct maintained effective internal control over financial reporting as of December 31, 2022.

Changes in Internal Control over Financial Reporting

No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the three months ended December 31, 2022 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

Not applicable.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspection. Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

Set forth in Item 1 of this Form 10-K under the heading "Information about our Executive Officers" is certain information regarding our executive officers, and information regarding our code of ethics is set forth below. The remaining information in response to this item is incorporated herein by reference to the disclosure that will be contained, as applicable, under the headings, "Delinquent Section 16(a) Reports," "Corporate Governance," "Proposal 1: Election of Directors," "Audit Committee Report," "Executive Compensation – Compensation Committee Report," and "Procedures for Submitting Director Nominations and Recommendations" in our Proxy Statement for our 2023 Annual Meeting of Stockholders (the "Proxy Statement"), which will be filed within 120 days after the end of the year covered by this Form 10-K.

Code of Ethics

We maintain a Standards of Business Conduct and Code of Ethics ("Standards of Business Conduct") that includes our code of ethics that is applicable to all employees, including our Chief Executive Officer, Chief Financial Officer, Chief Accounting Officer and Controller. Our Standards of Business Conduct, which require continued observance of high ethical standards, such as honesty, integrity and compliance with the law in the conduct of our business, are available for public access on our Internet website at https://transacttech.gcs-web.com/corporate-governance. Any person may request a copy of our Standards of Business Conduct free of charge by calling (203) 859-6800. We will disclose on our website at https://transacttech.gcs-web.com/corporate-governance any amendment to or waiver of a provision of the Standards of Business Conduct as may be required and within the time period specified under the applicable Securities and Exchange Commission and Nasdaq rules.

Item 11. Executive Compensation.

The information in response to this item will be contained in the Proxy Statement under the heading "Executive Compensation," and is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

Set forth below is certain information regarding our equity compensation plans. The remaining information in response to this item will be contained in the Proxy Statement under the heading, "Security Ownership of Certain Beneficial Owners and Management," and is incorporated herein by reference.

Equity Compensation Plan Information

Information regarding our equity compensation plans as of December 31, 2022 is as follows:

Plan category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights	(b) Weighted-average exercise price of outstanding options, warrants and rights	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders:			
2005 Equity Incentive Plan	156,000	\$ 10.09	-
2014 Equity Incentive Plan	1,414,241	7.60	347,652
Total	1,570,241	\$ 7.84	347,652

In May 2014, our stockholders approved the adoption of the 2014 Equity Incentive Plan. In May 2020, our stockholders approved an amendment to the 2014 Equity Incentive Plan to increase the number of shares of common stock which may be subject to awards granted under the plan from 1,400,000 to its current level of 2,200,000. The Company also maintains the 2005 Equity Incentive Plan; however no new awards will be available for future issuance under this plan. Both plans generally provide for awards in the form of: (i) incentive stock options, (ii) non-qualified stock options, (iii) restricted stock, (iv) restricted stock units (which may include performance-based vesting), (v) stock appreciation rights or (vi) limited stock appreciation rights. The Company does not have any equity plans that have not been approved by its stockholders.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information in response to this item will be contained in the Proxy Statement under the headings "Certain Relationships and Related Transactions" and "Corporate Governance-Board Leadership Structure and Independence" and is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services.

The information in response to this item will be contained in the Proxy Statement under the headings, "Policy Regarding Pre-Approval of Services Provided by the Independent Registered Public Accounting Firm" and "Independent Registered Public Accounting Firm's Services and Fees" and is incorporated herein by reference.



PART IV

Item 15. Exhibits and Financial Statement Schedules.

(a) The following documents are filed as part of this Form 10-K:

1. Financial Statements.

Report of Independent Registered Public Accounting Firm Consolidated Balance Sheets as of December 31, 2022 and 2021 Consolidated Statements of Operations for the years ended December 31, 2022 and 2021 Consolidated Statements of Comprehensive Loss for the years ended December 31, 2022 and 2021 Consolidated Statements of Changes in Shareholders' Equity for the years ended December 31, 2022 and 2021 Consolidated Statements of Cash Flows for the years ended December 31, 2022 and 2021 Notes to Consolidated Financial Statements

2. Schedules.

All schedules are omitted because they are either inapplicable or not required, or because the information required therein is included in the Consolidated Financial Statements and Notes thereto.

3. Exhibits

Exhibit Index

<u>3.1(a)</u>	Certificate of Incorporation of TransAct Technologies Incorporated (conformed copy) (incorporated by reference to Exhibit 3.2 of the Company's Quarterly Report on Form 10-Q (SEC File No. 000-21121) filed with the SEC on August 18, 2022).
<u>3.1(b)</u>	Certificate of Designation, Series A Preferred Stock, filed with the Secretary of State of Delaware on December 2, 1997 (incorporated by reference to Exhibit C of the Company's Current Report on Form 8-K (SEC File No. 000-21121) filed with the SEC on February 18, 1999).
<u>3.1(c)</u>	Certificate of Designation, Series B Preferred Stock, filed with the Secretary of State of Delaware on April 6, 2000 (incorporated by reference to Exhibit 3.1(c) of the Company's Quarterly Report on Form 10-Q (SEC File No. 000-21121) filed with the SEC on May 8, 2000).
<u>3.2</u> *	Amended and Restated By-Laws of TransAct Technologies Incorporated.
<u>4.1</u>	Specimen Common Stock Certificate (incorporated by reference to Exhibit 4.1 of the Company's Registration Statement on Form S-1/A (No. 333-06895) filed with the SEC on August 1, 1996).
<u>4.2</u>	Description of Securities (incorporated by reference to Exhibit 4.2 of the Company's Annual Report on Form 10-K (SEC File No. 000-21121) filed with the SEC on March 16, 2020).
<u>10.1(</u> x)	2005 Equity Incentive Plan (incorporated by reference to Exhibit 99.1 of the Company's Current Report on Form 8-K (SEC File No. 000-21121) filed with the SEC on June 1, 2005).
<u>10.2</u> (x)	TransAct Technologies Incorporated 2014 Equity Incentive Plan, as Amended and Restated (incorporated by reference to Exhibit I to the Definitive Proxy Statement on Schedule 14A filed with the Commission on April 23, 2020, File No. 000-21121).
<u>10.3(</u> x)	2014 Equity Incentive Plan Time-based Restricted Stock Unit Agreement (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q (SEC File No. 000-21121) filed with the SEC on May 6, 2016).
<u>10.4(</u> x)	2014 Equity Incentive Plan Performance-based Restricted Stock Unit Agreement (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q (SEC File No. 000-211121) filed with the SEC on August 8, 2016).
<u>10.5</u> (x)	2014 Equity Incentive Plan Non-statutory Stock Option Agreement (incorporated by reference to Exhibit 10.2 of the Company's current Report on Form 8-K (SEC File No. 000-21121) filed with the SEC on May 19, 2014).
<u>10.6</u> (x)	Employment Agreement, dated July 31, 1996, by and between TransAct and Bart C. Shuldman (incorporated by reference to Exhibit 10.20 of the Company's Registration Statement on Form S-1/A (No. 333-06895) filed with the SEC on August 1, 1996).
<u>10.7</u> (x)	Severance Agreement by and between TransAct and Steven A. DeMartino, dated June 1, 2004 (incorporated by reference to Exhibit 10.8 of the Company's Annual Report on Form 10-K (SEC File No. 000-21121) filed with the SEC on March 16, 2005).
<u>10.8</u> (x)	Amendment to Employment Agreement, effective January 1, 2008, by and between TransAct and Bart C. Shuldman (incorporated by reference to Exhibit 10.10 of the Company's Annual Report on Form 10-K (SEC File No. 000-21121) filed with the SEC on March 16, 2009).
<u>10.9</u> (x)	Amendment to Severance Agreement by and between TransAct and Steven A. DeMartino, effective January 1, 2008 (incorporated by reference to Exhibit 10.12 of the Company's Annual Report on Form 10-K (SEC File No. 000-21121) filed with the SEC on March 16, 2009).
<u>10.10</u> (x)	Severance Agreement by and between TransAct and Andrew J. Hoffman (as amended), effective December 23, 2008 (incorporated by reference to Exhibit 10.10 of the Company's Annual Report on Form 10-K (SEC File No. 000-21121) filed with the SEC on March 24, 2022).
<u>10.11(</u> x)	Second Amendment to Severance Agreement by and between TransAct and Steven A. DeMartino, effective April 29, 2021 (incorporated by reference to Exhibit 10.11 of the Company's Annual Report on Form 10-K (SEC File No. 000-21121) filed with the SEC on March 24, 2022).
<u>10.12(x)</u>	Amended and Restated Employment Agreement, dated as of December 14, 2022, by and between TransAct Technologies Incorporated and Bart C. Shuldman (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K (SEC File No. 000-21121) filed with the SEC on December 27, 2022).

- 10.13 Lease Agreement by and between Bomax Properties and Ithaca, dated as of March 23, 1992 (incorporated by reference to Exhibit 10.14 of the Company's Registration Statement on Form S-1 (No. 333-06895) filed with the SEC on June 26, 1996).
- 10.14 Second Amendment to Lease Agreement by and between Bomax Properties and Ithaca, dated December 2, 1996 (incorporated by reference to Exhibit 10.27 of the Company's Annual Report on Form 10-K (SEC File No. 000-21121) filed with the SEC on March 31, 1998).
- 10.15 Agreement regarding the Continuation and Renewal of Lease by and between Bomax Properties, LLC and TransAct, dated July 18, 2001 (incorporated by reference to Exhibit 10.8 of the Company's Annual Report on Form 10-K (SEC File No. 000-21121) filed with the SEC on March 29, 2002).
- 10.16 Amendment No. 1 to Lease Agreement between Bomax Properties, LLC and TransAct (incorporated by reference to Exhibit 10.16 of the Company's Quarterly Report on Form 10-Q (SEC File No. 000-21121) filed with the SEC on May 10, 2012).

10.17 Amendment No. 2 to Lease Agreement between Bomax Properties, LLC and TransAct, dated January 14, 2016 (incorporated by reference to Exhibit 10.13 of the Company's Annual Report on Form 10-K (SEC File No. 000-21121) filed with the SEC on March 11, 2016).

- 10.18 Amendment No. 3 to Lease Agreement between Bomax Properties, LLC and TransAct, dated February 28, 2020 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (SEC File No. 000-21121) filed with the SEC on March 4, 2020).
- 10.19 Lease Agreement by and between Las Vegas Airport Properties LLC and TransAct dated December 2, 2004 (incorporated by reference to Exhibit 10.13 of the Company's Annual Report on Form 10-K (SEC File No. 000-21121) filed with the SEC on March 16, 2005).
- 10.20 First Amendment to Lease Agreement by and between CIP Hughes Center LLC and TransAct dated August 24, 2009 (incorporated by reference to Exhibit 10.19 of the Company's Annual Report on Form 10-K (SEC File No. 000-21121) filed with the SEC on March 16, 2010).
 10.21 Second Amendment to Lease Agreement by and between The Realty Associates Fund IX LP and TransAct dated June 30, 2015 (incorporated
- by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q (SEC File No. 000-21121) filed with the SEC on August 7, 2015).
- 10.22 Lease Agreement by and between 2319 Hamden Center I, L.L.C. and TransAct dated November 27, 2006 (incorporated by reference to Exhibit 10.14 of the Company's Annual Report on Form 10-K (SEC File No. 000-21121) filed with the SEC on March 15, 2007).
- 10.23 First Amendment to Lease by and between 2319 Hamden Center I, L.L.C. and TransAct dated January 3, 2017 (incorporated by reference to Exhibit 10.20 of the Company's Annual Report on Form 10-K (SEC File No. 000-21121) filed with the SEC on March 16, 2017).
- 10.24 Second Amendment to Lease by and between 2319 Hamden Center I, L.L.C. and TransAct Technologies dated April 30, 2021 (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q (SEC File No. 000-21121) filed with the SEC on May 13, 2021).
- 10.25 Loan and Security Agreement, dated as of March 13, 2020, among Siena Lending Group LLC, TransAct Technologies Incorporated and the other Loan Parties from time to time party thereto (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q (SEC File No. 000-21121) filed with the SEC on May 22, 2020).
- 10.26 Amendment No. 1 To Loan and Security Agreement, dated as of July 21, 2021, among Siena Lending Group and TransAct Technologies Incorporated (incorporated by reference to Exhibit 99.1 to the Company's Current Report on Form 8-K (SEC File No. 000-21121) filed with the SEC on July 26, 2021)
- 10.27 Amendment No. 2 To Loan and Security Agreement, dated as of July 19, 2022, between Siena Lending Group LLC and TransAct Technologies Incorporated (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (SEC File No. 000-21121) filed with the SEC on July 25, 2022).
- 10.28 Amended and Restated Fee Letter, dated as of July 19, 2022, between Siena Lending Group LLC and TransAct Technologies Incorporated (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K (SEC File No. 000-21121) filed with the SEC on July 25, 2022).
- 10.29[†] Master License Agreement dated February 22, 2019 and amendments thereto (incorporated by reference to Exhibit 10.24 to the Company's Annual Report on Form 10-K (SEC File No. 000-21121) filed with the SEC on March 12, 2021).
- 10.30[†] Master Development and License Agreement dated July 20, 2018 (incorporated by reference to Exhibit 10.25 to the Company's Annual Report on Form 10-K (SEC File No. 000-21121) filed with the SEC on March 12, 2021).

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<u>10.31</u>	Cooperation Agreement, dated as of March 30, 2022, by and among TransAct Technologies Incorporated, 325 Capital Master Fund LP and
	Harbert Discovery Fund, L.P. (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (SEC File No. 000-
	21121) filed with the SEC on March 31, 2022).
<u>21</u>	Subsidiaries of the Company (incorporated by reference to Exhibit 21 to the Company's Annual Report on Form 10-K (SEC File No. 000-
	21121) filed with the SEC on March 12, 2021)
<u>23.1</u> *	Consent of Marcum LLP
<u>31.1</u> *	Rule 13a-14(a) Certification of Chief Executive Officer in accordance with Section 302 of the Sarbanes-Oxley Act of 2002.
<u>31.2</u> *	Rule 13a-14(a) Certification of Chief Financial Officer in accordance with Section 302 of the Sarbanes-Oxley Act of 2002.
<u>32</u> ‡	Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of
	the Sarbanes-Oxley Act of 2002.
101.INS	Inline XBRL Instance Document (the instance document does not appear in the Interactive Data File because its XBRL tags are embedded
	within the Inline XBRL document).
101.SCH	Inline XBRL Taxonomy Extension Schema Document.
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).

(x) Management contract or compensatory plan or arrangement.

* These exhibits are filed herewith.

+ Certain portions of this exhibit (indicated by "[***]") have been omitted pursuant to Item (601)(b)(10) of Regulation S-K.

‡ These exhibits are furnished herewith.

(b) Exhibits.

The Exhibits required by Item 601 of Regulation S-K under the Exchange Act are included in the Exhibit Index above under a(3) of this Item 15.

(c) Financial Statement Schedules.

See the Notes to the Consolidated Financial Statements included in this Form 10-K.

Item 16. Form 10-K Summary.

Not applicable.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

TRANSACT TECHNOLOGIES INCORPORATED

By:	/s/ Bart C. Shuldman
Name:	Bart C. Shuldman
Title:	Chief Executive Officer

Date: March 27, 2023

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Bart C. Shuldman Bart C. Shuldman	Chief Executive Officer and Director (Principal Executive Officer)	March 27, 2023
/s/ Steven A. DeMartino Steven A. DeMartino	President, Chief Financial Officer, Treasurer and Secretary (Principal Financial Officer)	March 27, 2023
/s/ William J. DeFrances William J. DeFrances	Vice President and Chief Accounting Officer (Principal Accounting Officer)	March 27, 2023
/s/ Haydee Ortiz Olinger Haydee Ortiz Olinger	Chair of the Board	March 27, 2023
/s/ John M. Dillon John M. Dillon	Director	March 27, 2023
/s/ Audrey P. Dunning Audrey P. Dunning	Director	March 27, 2023
/s/ Daniel M. Friedberg Daniel M. Friedberg	Director	March 27, 2023
/s/ Randall S. Friedman Randall S. Friedman	Director	March 27, 2023
<u>/</u> s/ Emanuel P. N. Hilario Emanuel P.N. Hilario	Director	March 27, 2023

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TRANSACT TECHNOLOGIES INCORPORATED INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Consolidated Financial Statements	
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Consolidated Balance Sheets as of December 31, 2022 and 2021	F-4
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To the Shareholders and Board of Directors of **TransAct Technologies Incorporated**

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of TransAct Technologies Incorporated (the "Company") as of December 31, 2022 and 2021, and the related consolidated statements of operations, comprehensive loss, changes in shareholders' equity and cash flows for each of the two years in the period ended December 31, 2022, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

Explanatory Paragraph – Change in Accounting Principle

As described in Note 16 to the consolidated financial statements, effective April 1, 2022, the Company changed its method of inventory valuation from standard cost (which approximated actual cost on a "first-in, first-out" basis) to the average cost method of inventory accounting. Comparative financial statements of prior periods have been adjusted to apply the new method retrospectively.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Valuation of Inventories - Change in Accounting Principle

As described in Note 16 to the consolidated financial statements, effective April 1, 2022, the Company changed its method of inventory valuation from standard costing (which approximated the "first-in, first-out" costing methodology) to the average costing methodology, and comparative financial statements of prior periods were adjusted to apply the new method retrospectively. Management determined that this change in accounting principle was preferable because it reflects a better estimate of inventory cost. At December 31, 2022, the Company's inventory balance was approximately \$12.0 million. As discussed in Note 2 to the consolidated financial statements, inventories are stated at the lower of average cost or net realizable value.

The principal considerations for our determination that the Company's change in accounting principle related to inventory valuation was a critical audit matter included the following: (1) management identifies inventories as a critical accounting estimate, and this change in accounting principle was considered to be a significant transaction during the year; (2) there were significant judgments made by management with respect to the change, including the explanation of why the change in accounting principle was preferable and the estimation of the retrospective adjustment to apply the new method of inventory valuation; and (3) management's calculation to estimate the adjustment was intricate, due to the complexities of the manual calculations involved and the magnitude of transactions flowing through the analysis. This complexity led to a high degree of auditor effort in performing our audit procedures, which were designed to evaluate the reasonableness of management's calculation and application of the retrospective inventory valuation adjustment.

Addressing the critical audit matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included, among others, (i) obtaining an understanding of why the Company changed its accounting principle to the average costing methodology; (ii) evaluating management's methodology and process for estimating the retrospective average costing adjustment; (iii) testing management's calculation of the retrospective adjustment, which included evaluating the completeness and accuracy of management's input data used in the manual calculation, principally inputs such as historical purchases and sales transactions; (iv) and evaluating the reasonableness of significant judgments used by management, principally management's determination that one year of historical costing data was sufficient to adjust the opening balance for the retrospective adjustment.

/s/ Marcum LLP

We have served as the Company's auditor since 2020.

Hartford, Connecticut March 27, 2023

TRANSACT TECHNOLOGIES INCORPORATED

CONSOLIDATED BALANCE SHEETS (As adjusted, in thousands, except share data)

	Dec	December 31, 2022		ember 31, 2021
Assets:				
Current assets:	¢	T 0 40	.	40.455
Cash and cash equivalents	\$	7,946	\$	19,457
Accounts receivable, net		13,927		7,593
Employee retention credit receivable		1,500		1,500
Inventories		12,028		7,711
Prepaid income taxes		_		137
Other current assets		724		738
Total current assets		36,125		37,136
Fixed assets, net		2,781		2,684
Right-of-use asset		2,488		2,553
Goodwill		2,621		2,621
Deferred tax assets		7,327		5,143
Intangible assets, net		242		397
Other assets		248		400
		15,707		13,798
Total assets	\$	51,832	\$	50,934
Liabilities and Shareholders' Equity:				
Current liabilities:				
Current portion of revolving loan payable	\$	2,250	\$	_
Accounts payable	ψ	7,395	φ	4,308
Accrued liabilities		4,077		3,894
Lease liability		4,077		789
Deferred revenue		1,329		805
Total current liabilities		15,926		9,796
Deferred revenue, net of current portion		143		186
Lease liability, net of current portion		1,683		1,781
Other liabilities		218		187
		2,044		2,154
Total liabilities		17,970		11,950
Commitments and contingencies (see Notes 9 and 14)				
Charachaldens' a suritory				
Shareholders' equity:				
Preferred stock, \$0.01 value, 4,800,000 authorized, none issued and outstanding		-		-
Preferred stock, Series A, \$0.01 par value, 200,000 authorized, none issued and outstanding Common stock, \$0.01 par value, 20,000,000 authorized at December 31, 2022 and 2021; 13,956,725 and		-		-
13,917,731 shares issued; 9,911,883 and 9,872,889 shares outstanding, at December 31, 2022 and 2021, respectively		139		139
Additional paid-in capital		56,282		55,246
Retained earnings		9,630		15,566
Accumulated other comprehensive (loss) income, net of tax		(79)		13,300
Treasury stock, 4,044,842 shares, at cost		(32,110)		(32,110)
•				
Total shareholders' equity	*	33,862	¢	38,984
Total liabilities and shareholders' equity	\$	51,832	\$	50,934

See accompanying notes to Consolidated Financial Statements.

TRANSACT TECHNOLOGIES INCORPORATED CONSOLIDATED STATEMENTS OF OPERATIONS (As adjusted, in thousands, except per share data)

	Years Ende	Years Ended December 31,			
	2022		2021		
Net sales	\$ 58,13	9 \$	39,386		
Cost of sales	33,72		24,004		
Contra mufit	24.41	2	15 202		
Gross profit	24,41		15,382		
Operating expenses:					
Engineering, design and product development	8,57	0	7,475		
Selling and marketing	11,32	6	7,658		
General and administrative	12,19	3	9,626		
	32,08	9	24,759		
Operating loss	(7,67	7)	(9,377)		
Interest and other income (expense):					
Interest expense	(20	8)	(157)		
Interest income		_	61		
Other, net	(1	6)	(283)		
Gain from employee retention credit		_	1,500		
Gain on forgiveness of long-term debt			2,173		
	(22	4)	3,294		
Loss before income taxes	(7,90	1)	(6,083)		
Income tax benefit	1,96		2,042		
Net loss	\$ (5,93		(4,041)		
Net loss per common share:					
Basic		0) \$	(0.43)		
Diluted	\$ (0.6	0)\$	(0.43)		
Shares used in per-share calculation:					
Basic	9,90	5	9,298		
Diluted	9,90		9,298		

See accompanying notes to Consolidated Financial Statements.

TRANSACT TECHNOLOGIES INCORPORATED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS (As adjusted, in thousands)

	Years Ende	ed December 31,
	2022	2021
Net loss	\$ (5,93	6) \$ (4,041)
Foreign currency translation adjustment, net of tax	(22	
Comprehensive loss	\$ (6,15	<u>8) \$ (3,860)</u>

See accompanying notes to Consolidated Financial Statements.

TRANSACT TECHNOLOGIES INCORPORATED CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY (As adjusted, in thousands, except share data)

	Commo	n Stock	Additional Paid-in		Detained	T	Accumulated Other		Total
	Shares	Amount	Capital		Retained Earnings	Treasury Stock	Comprehensi (Loss) Incom		Equity
Balance, January 1, 2021	8,931,385	\$ 130	\$ 42,536	\$	19,607	\$ (32,110)		38)	\$ 30,125
Issuance of common stock from exercise			10.0						19.6
of stock options Issuance of common stock on restricted	97,000	_	436		_	_		-	436
stock units Issuance of common	50,525	-	-		-	-		-	-
stock, net of issuance cost	842,375	9	11,201		-	-		_	11,210
Relinquishment of stock awards and deferred stock units to pay withholding									
taxes Share-based compensation	(48,396)	-	(133)		-	-		-	(133)
expense Foreign currency	-	-	1,206		-	-		-	1,206
translation adjustment, net of									
tax Net loss	-	-	-		- (4,041)	-	18	31	181 (4,041)
Balance, December 31, 2021	9,872,889	139	 55,246	_	15,566	(32,110)	14	43	38,984
Issuance of common stock from exercise	17 500								
of stock options Issuance of common stock on restricted	17,500	-	-		-	-		-	-
stock units Relinquishment of	47,931	-	-		-	-		_	-
stock awards and deferred stock units to pay withholding									
taxes Share-based	(26,437)	-	(119)		-	-		-	(119)
compensation expense	_	_	1,155		_	-		_	1,155
Foreign currency translation adjustment, net of									
tax Net loss	-	-	_		(5,936)	-	(22	22)	(222) (5,936)
Balance, December 31, 2022	9,911,883	\$ 139	\$ 56,282	\$	9,630	\$ (32,110)	\$ (7	79)	\$ 33,862

See accompanying notes to Consolidated Financial Statements.

TRANSACT TECHNOLOGIES INCORPORATED CONSOLIDATED STATEMENTS OF CASH FLOWS (As adjusted, in thousands)

Cash flows from operating activities: Net loss Adjustments to reconcile net loss to net cash used in operating activities: Share-based compensation expense	\$ 2022	2021
Net loss Adjustments to reconcile net loss to net cash used in operating activities:	\$	-
Adjustments to reconcile net loss to net cash used in operating activities:	\$	
	(5,936)	\$ (4,041)
Share-based compensation expense		
	1,155	1,206
Depreciation and amortization	1,332	957
Deferred income tax benefit	(2,141)	(2,121)
Loss on the disposal of fixed assets	2	9
Foreign currency transaction losses	6	272
Gain on forgiveness of long-term debt	-	(2,173)
Changes in operating assets and liabilities:	(6.401)	(4.017)
Accounts receivable	(6,421)	(4,217)
Employee retention credit receivable	-	(1,500)
Inventories	(4,378)	3,440
Prepaid income taxes	137	2,210
Other current and long-term assets	167	322
Accounts payable Accrued liabilities and other liabilities	3,103 754	2,534 592
Net cash used in operating activities	 (12,220)	 (2,510)
Cash flows from investing activities:		
Capital expenditures	(1,299)	(1,384)
Proceeds from the sale of fixed assets	-	8
Collection of note receivable	 _	 1,598
Net cash (used in) provided by investing activities	 (1,299)	 222
Cash flows from financing activities:		
Proceeds from bank borrowings	2,250	-
Proceeds from stock option exercises	-	436
Proceeds from the issuance of common stock	-	12,214
Payment of common stock issuance costs	-	(1,014)
Withholding taxes paid on stock issuance	(119)	(133)
Payment of bank financing costs	 (69)	 (31)
Net cash provided by financing activities	 2,062	 11,472
Effect of exchange rate changes on cash and cash equivalents	 (54)	 (86)
(Decrease) increase in cash and cash equivalents	(11,511)	9,098
Cash and cash equivalents, beginning of period	19,457	10,359
Cash and cash equivalents, end of period	\$ 7,946	\$ 19,457
Supplemental cash flow information:		
Interest paid	\$ 129	\$ 76
Income taxes paid	 62	57
Non-cash capital expenditure items	54	82

See accompanying notes to Consolidated Financial Statements.

TRANSACT TECHNOLOGIES INCORPORATED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Description of business

TransAct Technologies Incorporated (together with its subsidiaries, "TransAct," the "Company," "we," "us," or "our"), which has its headquarters in Hamden, Connecticut and its primary operating facility in Ithaca, New York, operates in one operating segment: software-driven technology and printing solutions for high growth markets including food service technology, casino and gaming and "point of sale" ("POS") automation markets. Our solutions are designed from the ground up based on market and customer requirements and are sold under the BOHA!TM, AccuDate[™], Epic, Ithaca®, and EPICENTRAL product brands. We sell our products to original equipment manufacturers, value-added resellers, select distributors, and directly to endusers. Our product distribution spans across the Americas, Europe, the Middle East, Africa, Asia, Australia, New Zealand, the Caribbean Islands and the South Pacific. TransAct also provides world-class service, spare parts, accessories and printing supplies to its growing worldwide installed base of products. We also generate revenue from the after-market side of the business, providing printer and terminal service, consumables and spare parts in addition to revenue from our two software solutions; (i) our line of BOHA! software applications used to automate the back-of-house operations of restaurants, convenience stores and food service operators and (ii) the EPICENTRAL Print System ("EPICENTRAL"), that enables casino operators to create promotional coupons and marketing messages and print them in real time at the slot machine.

Impact of the COVID-19 Pandemic and Global Supply Chain Disruptions

Since early 2020, the COVID-19 pandemic has continued to cause uncertainty and disruption in the global economy and financial markets. We have also been impacted by global supply chain issues, increased shipping costs and inflationary pressures, which have increased our costs and, in some instances, slowed our ability to deliver products to our customers. During 2021, our inventory levels decreased significantly as a result of these supply chain disruptions, and we experienced significantly lower sales levels. However, during 2022 we were able to increase our inventory levels and minimize the impact to our customers by successfully modifying our products that were affected by supply chain disruptions, as well as sourcing component parts from alternate suppliers. Although we were able to increase inventory levels during 2022 and expect to continue to do so in 2023, there can be no assurance that new or continuing supply chain disruptions will not affect our products or that we will be able to make timely modifications to address any future supply chain issues that arise. Further, while we have offset most of our cost increases by increasing prices of our products, there can be no guarantee that we will be able to offset any future cost increases should they arise. After a slowdown in the first quarter of 2022 resulting from the Omicron and other variants of COVID-19, we continued to experience demand recovery during the remainder of 2022. Based on our strong backlog position and continued market expansion, we expect this recovery to continue into 2023, though the exact timing and pace of recovery may be impacted by global economic conditions.

Balance Sheet, Cash Flow and Liquidity. We have taken the following actions to increase liquidity and strengthen our financial position in an effort to mitigate the negative impacts from the COVID-19 pandemic, supply chain disruptions and inflationary pressures:

- Public Offering On August 16, 2021, the Company raised net proceeds of \$11.2 million (including the exercise of the underwriters overallotment
 option on August 20, 2021), after deducting underwriting discounts, commissions and offering expenses, through an underwritten public offering
 and sold an aggregate of 842,375 shares of common stock.
- PPP Loan On May 1, 2020, the Company was granted a \$2.2 million loan (the "PPP Loan") under the Paycheck Protection Program (the "PPP") administered by the Small Business Administration ("SBA") established under Division A, Title I of the Coronavirus Aid, Relief, and Economic Security ("CARES") Act, which enabled us to return employees we furloughed earlier in 2020 to full time employment and to restore employees to full pay following certain pay cuts. On July 8, 2021, we received notice that the PPP Loan had been forgiven as of July 1, 2021. See Note 8 for further details regarding the PPP Loan.
- Employee Retention Credit Under the provisions of the CARES Act, the Company is eligible for a refundable employee retention credit subject to certain criteria. In connection with the CARES Act, the Company recognized the employee retention credit during the fourth quarter of 2021 and recorded \$1.5 million as "Gain from employee retention credit" in the Consolidated Statement of Operations for the year ended December 31, 2021 and the related receivable as "Employee retention credit receivable" in the Consolidated Balance Sheet as of December 31, 2021 and 2022. We received these funds in the first quarter of 2023.
- On March 13, 2020, we entered into a Credit Facility with Siena Lending Group LLC that provides a revolving credit line of up to \$10.0 million, subject to a borrowing base and on July 19, 2022, we entered into an amendment to extend the maturity of the facility to March 13, 2025. See Note 8 for further details regarding this facility.
- Reduced Capital Expenditures We limited capital expenditures during 2020 and 2021 and gradually increased these expenditures during 2022 as sales improved.

After reviewing whether conditions and/or events raise substantial doubt about our ability to meet future financial obligations over the 12 months following the date on which the Consolidated Financial Statements included in this "Form 10-K" were issued, including consideration of the actions taken to manage expenses and liquidity, we believe that our net cash to be provided by operations combined with our cash and cash equivalents and borrowing availability under our revolving credit facility will provide sufficient liquidity to fund our current obligations, capital spending, and working capital requirements and to comply with the financial covenants of our credit facility over at least 12 months following such issuance date.

Use of Assumptions and Estimates

Management's belief that the Company will be able to fund its planned operations over the 12 months following the date on which the Consolidated Financial Statements were issued is based on assumptions which involve significant judgment and estimates of future revenues, inflation, rising interest rates, capital expenditures and other operating costs. Our current assumptions are that casinos and restaurants will remain open and consumer traffic will continue to increase during the balance of 2023. Though demand for our products at casinos has increased substantially in 2022, and we expect this trend to continue, we cannot predict the ultimate impact of the current economic environment, including inflation, rising interest rates and supply chain disruptions on our customers, which may impact sales. We believe that we are positioned to withstand the impact of any potential economic downturn or slower than anticipated economic recovery. However, despite our significant backlog of orders as of December 31, 2022 and increasing market share during 2022, should such conditions arise, we believe we will be able to take additional financial and operational actions to cut costs and/or increase liquidity.

In addition, the presentation of the accompanying audited Consolidated Financial Statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and the disclosure of contingent assets and liabilities. Our estimates include those related to revenue recognition, accounts receivable, inventory obsolescence, goodwill and intangible assets, the valuation of deferred tax assets and liabilities, depreciable lives of equipment, share-based compensation and contingent liabilities. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results could differ from those estimates used.

Smaller Reporting Company

As a smaller reporting company, as defined in Item 10(f)(1) of Regulation S-K, we may choose to prepare our disclosures relying on certain scaled disclosure requirements for smaller reporting companies in Regulation S-K and in Article 8 of Regulation S-X.

The scaled disclosure requirements for smaller reporting companies permit us (i) to include less extensive narrative disclosure than required of other reporting companies, particularly in the description of executive compensation in our proxy statement and (ii) to provide audited financial statements for two fiscal years in our Form 10-K, in contrast to other reporting companies, which must provide audited financial statements for three years.

We may lose our status as a smaller reporting company on the last day of the fiscal year in which we have (i) public float of at least \$250 million as of the last day of the second fiscal quarter and (ii) if we have a public float that does not exceed \$700 million as of the last day of the second fiscal quarter and at least \$100 million in annual revenues.

2. Summary of significant accounting policies

Principles of consolidation: The accompanying Consolidated Financial Statements include the audited Consolidated Financial Statements of TransAct and its wholly-owned subsidiaries, which require consolidation, after the elimination of intercompany accounts, transactions and unrealized profit.

Use of estimates: The preparation of Consolidated Financial Statements in conformity with accounting principles generally accepted in the United States of America ("GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses, and disclosure of contingent assets and liabilities as of the date of the Consolidated Financial Statements and the reported amounts of sales and expenses during the reporting period. Actual results could differ from those estimates.

Segment reporting: We apply the provisions of the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 280, "Segment Reporting." We view our operations and manage our business as one segment: the design, development and marketing of software-driven technology and printing solutions and providing printer and terminal related software, services, supplies and spare parts. Factors used to identify TransAct's single operating segment include the organizational structure of the Company and the financial information available for evaluation by the chief operating decision-maker in making decisions about how to allocate resources and assess performance.

Cash and cash equivalents: We consider all highly liquid investments with a maturity date of three months or less at date of purchase to be cash equivalents.

Allowance for doubtful accounts: We establish an allowance for doubtful accounts to ensure trade receivables are valued appropriately. We maintain an allowance for doubtful accounts based on a variety of factors, including the length of time receivables are past due, significant one-time events and historical experience. We record a specific allowance for individual accounts when we become aware of a customer's inability to meet its financial obligations, such as in the case of bankruptcy filings or deterioration in the customer's operating results or financial position. If circumstances related to customers change, we further adjust estimates of the recoverability of receivables.

The following table summarizes the activity recorded in the valuation account for accounts receivable:

	Years Endec	l December 31,
(In thousands)	2022	2021
Balance, beginning of period	\$ 219	\$ 220
Additions charged to costs and expenses	140	-
Deductions) (1)
Balance, end of period	\$ 351	\$ 219

Inventories: Inventories are stated at the lower of average cost or net realizable value. We review net realizable value based on estimated selling prices in the ordinary course of business less estimated costs of completions, disposal and transportation, historical usage and estimates of future demand. Based on these reviews, inventory write-downs are recorded, as necessary, to reflect estimated obsolescence, excess quantities and net realizable value.

Effective April 1, 2022, TransAct changed its method of inventory valuation from standard costing which approximated the "first-in, first-out" ("FIFO") costing methodology to the average costing methodology. Comparative financial statements of prior periods have been adjusted to apply the new method retrospectively. See Note 16 for a discussion of the change in accounting principle during the second quarter of 2022.

Fixed assets: Fixed assets are stated at cost. Depreciation is recorded using the straight-line method over the estimated useful lives. The estimated useful life of tooling is five years; machinery and equipment is ten years; furniture and office equipment is five years to ten years; and computer software and equipment is three years to seven years. Leasehold improvements are amortized over the shorter of the term of the lease or the useful life of the asset. Costs related to repairs and maintenance are expensed as incurred. The costs of sold or retired assets are removed from the related asset and accumulated depreciation accounts and any gain or loss is recognized. Depreciation expense was \$1.1 million and \$0.7 million in 2022 and 2021, respectively.

Leases: We account for leases in accordance with ASC 842, "Leases" ("ASC 842"), which requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase by the lessee. This classification determines whether lease expense is recognized based on an effective interest method for finance leases or on a straight-line basis over the term of the lease for operating leases. A lessee is also required to record a right-of-use asset and a lease liability for all leases with a term of greater than 12 months regardless of their classification. Leases with a term of 12 months or less are accounted for based on existing guidance for operating leases. If risks and rewards are conveyed without the transfer of control, the lease is treated as financing. If the lessor does not convey risks and rewards or control, the lease is treated as operating.

We have elected certain practical expedients available under ASC 842 upon adoption. We have applied the practical expedient for short-term leases. We have lease agreements that include lease and non-lease components, and we have not elected the practical expedients to combine these components for any of our leases.

We enter into lease agreements for the use of real estate space and certain equipment under operating leases and we have no financing leases. We determine if an arrangement contains a lease at inception. Our leases are included in "Right-of-use asset" and "Lease liability" in our Consolidated Balance Sheets.

Right of use assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Lease right of use assets and liabilities are recognized at the commencement date of the lease based on the present value of lease payments over the lease term.

On April 26, 2022, we entered into an amendment to modify the expiration date of our lease on our Las Vegas, Nevada facility. The lease was set to expire on November 1, 2022 and the amendment extended the lease term to November 30, 2025. The lease amendment resulted in an increase to the right-of-useasset and lease liability of \$0.8 million. The lease amendment modified the base rent. On April 30, 2021, we entered into an amendment to modify the expiration date of our lease on our Hamden, CT facility. The lease, which was last amended on January 3, 2017, was scheduled to expire on April 30, 2027. The lease amendment modified the expiration date to October 31, 2025. The modification resulted in reducing the right-of-use-asset and lease liability by \$0.3 million.

Lease expense is recognized on a straight-line basis over the lease term. As most of our leases do not provide an implicit rate, the Company determines its incremental borrowing rate by using the rate of interest that the Company would have to pay to borrow on a collateralized basis over a similar term, an amount equal to the lease payments in a similar economic environment. Our lease right of use asset excludes lease incentives. Our leases have remaining lease terms of one year to four years, some of which include options to extend. The exercise of lease renewal options is at our sole discretion and our lease right of use assets and liabilities reflect only the options we are reasonably certain that we will exercise. Lease expense is recognized on a straight-line basis over the lease term.

Goodwill and intangible assets: We acquire businesses in purchase transactions that result in the recognition of goodwill and intangible assets. The determination of the value of intangible assets requires management to make estimates and assumptions. In accordance with ASC 350-20 "Goodwill," acquired goodwill is not amortized but is subject to impairment testing at least annually and when an event occurs or circumstances change that indicate it is more likely than not an impairment exists. We perform a fair value-based impairment test to the carrying value of goodwill and indefinite-lived intangible assets on an annual basis and, if certain events or circumstances indicate that an impairment loss may have been incurred, on an interim basis. The Company utilizes the option to first assess qualitative factors to determine whether it is necessary to perform the Step 1 quantitative goodwill impairment test in accordance with the applicable accounting standards. Under the qualitative assessment, management considers relevant events and circumstances including but not limited to macroeconomic conditions, industry and market considerations, Company performance and events directly affecting the Company. If the Company determines that the Step 1 quantitative impairment test is required, management estimates the fair value of the reporting unit primarily using the income approach, which reflects management's cash flow projections, and also evaluates the fair value using the market approach. Factors considered that may trigger an interim period impairment review of either acquired goodwill or intangible assets are: significant underperformance relative to expected historical or projected future operating results; significant changes in the manner of use of acquired assets or the strategy for the overall business; significant negative industry or economic trends; and significant decline in market capitalization relative to net book value. Finite lived intangible assets are amortized and are tested for impairment when ap

As of December 31, 2022, we have determined that no goodwill or intangible asset impairment has occurred and the fair value of goodwill was substantially higher than our carrying value based on our assessment as of December 31, 2022 when our annual review for impairment was performed.

Revenue recognition: We account for revenue in accordance with ASC Topic 606: Revenue from Contracts with Customers. In accordance with ASC 606, a performance obligation is a promise in a contract with a customer to transfer a distinct good or service to the customer. Some of our contracts with customers contain a single performance obligation, while other contracts contain multiple performance obligations (most commonly when contracts include a hardware product, software and extended warranties). A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied.

The transaction price is determined based on the consideration to which the Company will be entitled in exchange for transferring services to the customer. To the extent the transaction price includes variable consideration, such as price protection, reserves for returns and other allowances, the Company estimates the amount of variable consideration that should be included in the transaction price utilizing either the "expected value" method or the "most likely amount" method depending on the nature of the variable consideration. Variable consideration is included in the transaction price if, in the Company's judgment, it is probable that a significant future reversal of cumulative revenue under the contract will not occur.

For a majority of our revenue, which consists of printers, terminals, consumables, and replacement parts, the Company recognizes revenue as of a point of time. The transaction price is recognized upon shipment of the order when control of the goods is transferred to the customer and at the time the performance obligation is fulfilled. We also sell a software solution in our casino and gaming market, EPICENTRAL, that enables casino operators to create promotional coupons and marketing messages and to print them in real time at the slot machine. EPICENTRAL is primarily comprised of both a software component, which is licensed to the customer, and a hardware component. EPICENTRAL software and hardware are integrated to deliver the system's full functionality. The transaction prices from EPICENTRAL software license and hardware are recognized upon installation and formal acceptance by the customer when control of the license is transferred to the customer. For out-of-warranty repairs, the transaction price is recognized after the repair work is completed and the printer or terminal is returned to the customer, as control of the product is transferred to the customer and our performance obligation is completed.

Performance obligations are satisfied over time if the customer receives the benefits as we perform work, if the customer controls the asset as it is being produced, or if the product being produced for the customer has no alternative use and we have a contractual right to payment. For our separately priced extended warranty, BOHA! cloud-based software applications, technical support for our food service technology terminals and maintenance agreements (including free one-year maintenance received by customers upon completion of EPICENTRAL installation) revenue is recognized over time as the customer receives the benefit. The transaction price from the maintenance services is recognized ratably over time, using output methods, as control of the services is transferred to the customer. Our cloud-based BOHA! software allows customers to use hosted software over the contract period on a subscription basis without taking possession of the software and the subscription price is recognized ratably over the contract period. For extended warranties, the transaction price is recognized ratably over the warranty period, using output methods, as control of the services is transferred to the customer to the customer the warranty period, using output methods, as control of the services is transferred to the customer to the customer the warranty period, using output methods, as control of the services is transferred to the customer.

When there is more than one performance obligation in a customer arrangement, the Company typically uses the "standalone selling price" method to determine the transaction price to allocate to each performance obligation. The Company sells the performance obligations separately and has established standalone selling prices for its products and services. In the case of an overall price discount, the discount is applied to each performance obligation proportionately based on standalone selling price. To determine the standalone selling price for initial EPICENTRAL installations, the Company uses the adjusted market assessment approach.

For contracts with terms of less than 12 months, the Company expenses sales commissions as they are incurred, since the expected amortization period of the cost to obtain a contract is less than 12 months.



Disaggregation of revenue

The following table disaggregates our revenue by market type, as we believe it best depicts how the nature, amount, timing and uncertainty of our revenue and cash flows are affected by economic factors. Sales and usage-based taxes are excluded from revenues.

		Year Ended December 31, 2022				
(In thousands)	Ur	ited States	International		Total	
Food service technology	\$	11,602	\$ 762	\$	12,364	
POS automation		10,657	2		10,659	
Casino and gaming		17,686	12,343		30,029	
TransAct Services Group		4,089	998	_	5,087	
Total net sales	\$	44,034	\$ 14,105	\$	58,139	

		Year Ended December 31, 2021				
(In thousands)	United	States	International To			Total
Food service technology	\$	11,738	\$	887	\$	12,625
POS automation		4,817		8		4,825
Casino and gaming		10,173		5,129		15,302
Printrex		171		460		631
TransAct Services Group		5,501		502		6,003
Total net sales	\$	32,400	\$	6,986	\$	39,386

Contract balances

Contract assets consist of unbilled receivables. Pursuant to the over-time revenue recognition model, revenue may be recognized prior to the customer being invoiced. An unbilled receivable is recorded to reflect revenue that is recognized when such revenue exceeds the amount invoiced to the customer. Unbilled receivables are separated into current and non-current assets and included within "Accounts Receivable, net" and "Other Assets" on the Consolidated Balance Sheets. We first recorded contract assets during 2020 upon the start of a long-term BOHA! contract.

Contract liabilities consist of customer prepayments and deferred revenue. Customer prepayments are reported as "Accrued Liabilities" in current liabilities in the Consolidated Balance Sheets and represent customer payments made in advance of performance obligations in instances where credit has not been extended and is recognized as revenue when the performance obligation is complete. Deferred revenue is reported separately in current liabilities and non-current liabilities and consists of our extended warranty contracts, technical support for our food service technology terminals, EPICENTRAL maintenance contracts and prepaid software subscriptions for our BOHA! software applications, and is recognized as revenue as (or when) we perform under the contract. During the year ended December 31, 2022, we recognized revenue of \$1.1 million related to our contract liabilities as of December 31, 2021.

Net contract (liabilities) assets consist of the following:

	 December 31,			
(In thousands)	 2022		2021	
Unbilled receivables, current	\$ 392	\$	314	
Unbilled receivables, non-current	163		308	
Customer pre-payments	(101)		(99)	
Deferred revenue, current	(1,329)		(805)	
Deferred revenue, non-current	 (143)		(186)	
Net contract (liabilities) assets	\$ (1,018)	\$	(468)	

Remaining performance obligations

Remaining performance obligations represent the transaction price of firm orders for which a good or service has not been delivered to our customer. As of December 31, 2022, the aggregate amount of the transaction price allocated to remaining performance obligations was \$29.0 million. The Company expects to recognize revenue on \$28.7 million of its remaining performance obligations within the next 12 months following December 31, 2022, and the balance of these remaining performance obligations within the next 36 months following December 31, 2022.

Concentration of credit risk: Financial instruments that potentially expose us to concentrations of credit risk are limited to cash and cash equivalents held by our banks in excess of insured limits and accounts receivable.

Accounts receivable from customers representing 10% or more of total accounts receivable, net were as follows:

	December	r 31,
	2022	2021
Chain Link Services	_	10%
International Gaming Technology ("IGT")	12%	3%
NCR Corporation	3%	11%
The Bright Group	11%	_

Sales to customers representing 10% or more of total net sales were as follows:

	Decembe	er 31,	
	2022 2021		
IGT	10%		9%

Engineering, design and product development: Engineering, design and product development expenses include expenses incurred in connection with specialized engineering and design to introduce new products and to customize existing products, and are expensed as a component of operating expenses as incurred. We recorded \$8.6 million and \$7.5 million of research and development expenses in 2022 and 2021, respectively.

Costs incurred in the engineering, design and product development of a computer software product are charged to expense until technological feasibility has been established, at which point all material software costs are capitalized within Intangible assets in our Consolidated Balance Sheet until the product is available for general release to customers. While judgment is required in determining when technological feasibility of a product is established, we have determined that it is reached after all high-risk development issues have been documented in a formal detailed plan design. The amortization of these costs has been included in cost of sales over the estimated life of the product. During 2019, we contracted several third-parties to develop software for our food service technology products, the cost for which we capitalized. Unamortized development costs for such software was \$242 thousand and \$396 thousand as of December 31, 2022 and 2021, respectively. The total amount charged to cost of sales for capitalized software development costs was \$154 thousand in both 2022 and 2021.

Advertising: Advertising costs are expensed as incurred. Advertising expenses, which are included in selling and marketing expense on the accompanying Consolidated Statements of Operations for 2022 and 2021 totaled \$3.1 million and \$1.8 million, respectively. These expenses include items such as consulting, professional services, tradeshows, and print advertising.

Income taxes: The income tax amounts reflected in the accompanying Consolidated Financial Statements are accounted for under the liability method in accordance with ASC 740, "Income Taxes" ("ASC 740"). Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates in effect for the year in which those temporary differences are expected to be recovered or settled. We assess the likelihood that net deferred tax assets will be realized from future taxable income, and to the extent that we believe that realization is not likely, we establish a valuation allowance. In accordance with ASC 740, we identified, evaluated and measured the amount of benefits to be recognized for our tax return positions.

Foreign currency translation: The financial position and results of operations of our foreign subsidiary in the UK are measured using local currency as the functional currency. Assets and liabilities of such subsidiary have been translated into U.S. dollars at the year-end exchange rate, related sales and expenses have been translated at the weighted average rate for the period, and shareholders' equity has been translated at historical exchange rates. The resulting translation gains or losses, net of tax, are recorded in shareholders' equity as a cumulative translation adjustment, which is a component of accumulated other comprehensive income and loss. Foreign currency transaction gains and losses, including those related to intercompany balances, are recognized in Other, net on the Consolidated Statements of Operations.

Share-based payments: At December 31, 2022, we have share-based employee compensation plans, which are described more fully in Note 9 - Stock incentive plans. We account for those plans under the recognition and measurement principles of ASC 718, "Compensation – Stock Compensation." Share-based compensation expense is measured at the grant date, based on the estimated fair value of the award, and is recognized as expense over the employee's requisite service period.

We use the Black-Scholes option-pricing model to calculate the fair value of share-based awards. The key assumptions for this valuation method include the expected term of the option, stock price volatility, risk-free interest rate, dividend yield, market price of our underlying stock and exercise price. Many of these assumptions require judgment and are highly sensitive in the determination of compensation expense. Forfeitures are recognized as they occur.

Net loss per share: We report net income or loss per share in accordance with ASC 260, "Earnings per Share (EPS)." Under this guidance, basic EPS, which excludes dilution, is computed by dividing income or loss available to common shareholders by the weighted average number of common shares outstanding for the period. Diluted EPS reflects the potential dilution that could occur if securities or other contracts to issue common stock were exercised or converted into common stock. Diluted EPS includes in-the-money stock options using the treasury stock method. During a loss period, the assumed exercise of in-the-money stock options has an anti-dilutive effect, and therefore, these instruments are excluded from the computation of diluted EPS. See Note 11 - Earnings per share.

Change in accounting principle: See Note 16 for a discussion of a change in accounting principle which occurred in the second quarter of 2022. TransAct changed its method of inventory valuation from standard costing which approximates first-in first-out ("FIFO") to the average costing methodology. All prior periods presented have been retrospectively adjusted to apply the new method of accounting. Certain prior period amounts have been adjusted to conform with the current year presentation.

Reclassifications: Certain reclassifications have been made to prior year financial statements to conform to classifications used in the current year.

3. Inventories

The components of inventories are:

	Dec	ember 3	oer 31,		
(In thousands)	2022		2021*		
Raw materials and purchased component parts	\$ 8,88	4 \$	5,499		
Work-in-process		_	11		
Finished goods	3,14	4	2,201		
	\$ 12,02	8 \$	7,711		

see Note 16, Change in Accounting Principle

4. Fixed assets, net

The components of fixed assets, net are:

	 December 31,				
(In thousands)	2022	2021			
Tooling, machinery and equipment	\$ 6,859	\$ 6,6	694		
Furniture and office equipment	1,882	1,6	660		
Computer software and equipment	8,348	6,9	973		
Leasehold improvements	 2,883	2,8	872		
	19,972	18,1	199		
Less: Accumulated depreciation and amortization	 (17,656)	(16,7	736)		
	2,316	1,4	463		
Construction in-process	465	1,2	221		
	\$ 2,781	\$ 2,6	684		
			_		

5. Intangible assets, net

Identifiable intangible assets are recorded in Intangible assets, net in the accompanying Consolidated Balance Sheets and are comprised of the following:

	December 31,							
	2022			2021				
			Acc	umulated			Ac	cumulated
(In thousands)	Gross	Gross Amount Amortization			Gros	s Amount	Amortization	
Purchased technology	\$	1,591	\$	(1,349)	\$	1,591	\$	(1,195)
Patents		15		(15)		15		(14)
Total	\$	1,606	\$	(1,364)	\$	1,606	\$	(1,209)

Amortization expense was \$155 thousand and \$186 thousand in 2022 and 2021, respectively. Amortization expense for each of the next five years ending December 31 is expected to be as follows: \$154 thousand in 2023 and \$88 thousand in 2024; and none thereafter.

6. Accrued liabilities

The components of accrued liabilities are:

		31,		
(In thousands)		2022	_	2021
Salaries and compensation related	\$	2,744	\$	2,854
Taxes		530		79
Professional and consulting		371		285
Other		432		676
	\$	4,077	\$	3,894

7. Retirement savings plan

We maintain a 401(k) plan under which all full-time employees are eligible to participate at the beginning of the month immediately following their date of hire. We match employees' contributions at a rate of 50% of employees' contributions up to the first 6% of the employees' compensation contributed to the 401(k) plan. Our matching contributions were \$355 thousand and \$312 thousand in 2022 and 2021, respectively.

8. Borrowings

Credit Facility

On March 13, 2020, we entered into a credit facility (the "Siena Credit Facility") with Siena Lending Group LLC (the "Lender") and terminated our credit facility with TD Bank, N.A. The Siena Credit Facility provides for a revolving credit line of up to \$10.0 million and was originally scheduled to expire on March 13, 2023. Borrowings under the Siena Credit Facility bear a floating rate of interest equal to the greatest of (i) the prime rate plus 1.75%, (ii) the federal funds rate plus 2.25%, and (iii) 6.50%. The total deferred financing costs related to expenses incurred to complete the Siena Credit Facility was \$245 thousand, which were reported as "Other current assets" in current assets and "Other assets" in non-current assets in the Consolidated Balance Sheets. We also pay a fee of 0.50% on unused borrowings under the Siena Credit Facility. Borrowings under the Siena Credit Facility are secured by a lien on substantially all the assets of the Company.

The Siena Credit Facility imposes a financial covenant on the Company and borrowings are subject to a borrowing base based on (i) 85% of eligible accounts receivable plus the lesser of (a) \$5.0 million and (b) 50% of eligible raw material and 60% of finished goods inventory and restricts, among other things, our ability to incur additional indebtedness and create other liens. The three-month period from April 1, 2020 to June 30, 2020 was the first period we were subject to the original financial covenant, which required the Company to maintain a minimum EBITDA and continued through the 12-month period from April 1, 2020 to March 31, 2021. On July 21, 2021, the Company entered into an amendment ("Siena Credit Facility Amendment No. 1") to the Siena Credit Facility. Siena Credit Facility Amendment No. 1 changed the financial covenant under the Siena Credit Facility from a minimum EBITDA covenant to an excess availability covenant requiring that the Company maintain excess availability of at least \$750 thousand under the Siena Credit Facility, tested as of the end of each calendar month, beginning with the calendar month ending July 31, 2021. From July 31, 2021 through December 31, 2022, we remained in compliance with our excess availability covenant. As of December 31, 2022, we had \$2.3 million of outstanding borrowings under the Siena Credit Facility and \$3.9 million of net borrowing capacity available under the Siena Credit Facility.

On July 19, 2022, the Company and the Lender entered into Amendment No. 2 ("Siena Credit Facility Amendment No. 2") to the Siena Credit Facility, as amended by Siena Credit Facility Amendment No. 1. Also on July 19, 2022, the Company and the Lender entered into an Amended and Restated Fee Letter (the "Amended Fee Letter") in connection with the Siena Credit Facility Amendment No. 2. The Siena Credit Facility Amendment No. 2 did not modify the aggregate amount of the revolving commitment or the interest rate applicable to the loans.

The changes to the Siena Credit Facility provided for in Siena Credit Facility Amendment No. 2 include, among other things, the following:

- (i) The extension of the maturity date from March 13, 2023 to March 13, 2025; and
- (ii) The termination of the existing blocked account control agreement and entry into a new "springing" deposit account control agreement, permitting the Company to direct the use of funds in its deposit account until such time as (a) the sum of excess availability under Siena Credit Facility (as amended) and unrestricted cash is less than \$5 million for 3 consecutive business days or (b) an event of default occurs and is continuing.

In addition, the Amended Fee Letter requires the Company, while it retains the ability to direct the use of funds in the deposit account, to maintain outstanding borrowings of at least \$2,250,000 in principal amount. If the Company does not have the ability to direct the use of funds in the deposit account, then the Amended Fee Letter requires the Company to pay interest on at least \$2,250,000 principal amount of loans, whether or not such amount of loans is actually outstanding.

PPP Loan

On May 1, 2020, the Company was granted the PPP Loan from Berkshire Bank in the aggregate amount of \$2.2 million, pursuant to the PPP. Under the terms of the PPP, the PPP Loan would be forgiven to the extent that funds from the PPP Loan were used for payroll costs and costs to continue group health care benefits, as well as for interest on mortgage obligations incurred before February 15, 2020, rent under lease agreements in effect before February 15, 2020, utilities for which service began before February 15, 2020, and interest on debt obligations incurred before February 15, 2020, subject to conditions and limitations provided in the CARES Act. At least 60% (under the PPP terms, as amended) of the proceeds from the PPP Loan were required to be used for eligible payroll costs for the PPP Loan to be forgiven.

On July 8, 2021, the Company received notifications from Berkshire Bank and the SBA that the PPP Loan (including all interest accrued thereon) of \$2.2 million had been fully forgiven by the SBA and that the forgiveness payment date was July 1, 2021. The forgiveness of the PPP Loan was reported as "Gain on forgiveness of long-term debt" in the Consolidated Statement of Operations during the year ended December 31, 2021.

9. Stock incentive plans

Stock incentive plans. We currently have two stock incentive plans: the 2005 Equity Incentive Plan and the 2014 Equity Incentive Plan, which provide for awards to executives, key employees, directors and consultants. The plans generally provide for awards in the form of: (i) incentive stock options, (ii) non-qualified stock options, (iii) restricted stock, (iv) restricted stock units (which may include performance-based vesting), (v) stock appreciation rights or (vi) limited stock appreciation rights. Awards granted under these plans have exercise prices equal to 100% of the fair market value of the common stock at the date of grant. Awards granted have a ten-year term and generally vest over a two-year to four-year period, unless automatically accelerated for certain defined events. As of May 2014, no new awards may be made under the 2005 Equity Incentive Plan. Under our 2014 Equity Incentive Plan, as amended in May 2020, we are authorized to grant awards of up to 2,200,000 shares of TransAct common stock. At December 31, 2022, 347,652 shares of common stock remained available for issuance under the 2014 Equity Incentive Plan.

Under the assumptions indicated below, the weighted-average per share fair value of stock option grants for 2022 and 2021 was \$4.39 and \$5.41, respectively. We also issued restricted stock units for certain executives and directors that vest over a specified period of time, and in some instances require achieving certain performance metrics. The weighted-average per share fair value of these restricted stock units was \$8.43 and \$10.27 in 2022 and 2021, respectively.

The table below indicates the key assumptions (on a weighted-average basis) used in the option valuation calculations for options granted in 2022 and 2021 and a discussion of our methodology for developing each of the assumptions used in the valuation model:

	Year Ended Dec	cember 31,
	2022	2021
Expected option term (in years)	7.1	6.9
Expected volatility	51.3%	50.5%
Risk-free interest rate	2.2%	1.2%
Dividend yield	0.0%	0.0%

Expected Option Term - This is the weighted average period of time over which the options granted are expected to remain outstanding giving consideration to our historical exercise patterns. Options granted have a maximum term of ten years and an increase in the expected term will increase compensation expense.

Expected Volatility – The stock volatility for each grant is measured using the weighted average of historical daily price changes of our common stock over the most recent period approximately equal to the expected option term of the grant. An increase in the expected volatility factor will increase compensation expense.

Risk-Free Interest Rate - This is the U.S. Treasury rate in effect at the time of grant having a term approximately equal to the expected term of the option. An increase in the risk-free interest rate will increase compensation expense.

Dividend Yield – The dividend yield is calculated by dividing the annual dividend declared per common share by the weighted average market value of our common stock on the date of grant. An increase in the dividend yield will decrease compensation expense.

For both 2022 and 2021, we recorded \$1.2 million of share-based compensation expense included primarily in general and administrative expense in our Consolidated Statements of Operations. We also recorded income tax benefits of \$0.3 million in both 2022 and 2021, related to such share-based compensation. At December 31, 2022, these benefits are recorded as a deferred tax asset in the Consolidated Balance Sheets.

Equity award activity in the 2005 Equity Incentive Plan and the 2014 Equity Incentive Plan is summarized below:

	Stock 0	Stock Options				k Units
	Number of			Number of		Average
	Shares	Ave	rage Price*	Units		Price**
Outstanding at December 31, 2021	1,269,355	\$	9.18	155,225	\$	10.28
Granted	181,100		8.16	129,700		8.78
Exercised	(17,500)		6.70	(47,931)		10.22
Forfeited	(49,250)		9.38	(22,708)		10.27
Expired	(27,750)		8.51	_		-
Outstanding at December 31, 2022	1,355,955	\$	9.08	214,286	\$	9.28

* weighted average exercise price per share

** weighted average grant stock price per share

The following summarizes information about equity awards outstanding that are vested and expect to vest and equity awards that are exercisable at December 31, 2022:

	Equity	Equity Awards Vested and Expected to Vest							Equity Awards That Are Exercisable			
				Agg	gregate					Ag	ggregate	
		Av	erage	Int	rinsic	Remaining		А	verage	Ir	ntrinsic	Remaining
	Awards	P	rice*	V	7alue	Term**	Awards]	Price*		Value	Term**
Stock Options	1,355,955	\$	9.08	\$	224	5.0	971,865	\$	9.23	\$	93	3.7
Restricted stock units	145,687		-		921	2.1	-		-		-	_

* weighted average exercise price per share

** weighted-average contractual remaining term in years

Shares that are issued upon exercise of employee stock awards are newly issued shares and not issued from treasury stock. As of December 31, 2022, unrecognized compensation cost related to non-vested equity awards granted under our stock incentive plans is approximately \$2.1 million, which is expected to be recognized over a weighted average period of 2.6 years.

The total fair value of awards vested was \$1.6 million and \$1.7 million during the years ended December 31, 2022 and 2021, respectively. The total intrinsic value (which is the amount by which the stock price exceeded the exercise price on the date of exercise) of stock options exercised during the years ended December 31, 2022 and 2021 was \$40 thousand and \$268 thousand, respectively, and cash received from option exercises was zero and \$436 thousand in 2022 and 2021, respectively. 17,500 and 97,000 stock options were exercised during the year ended December 31, 2022 and 2021, respectively. We recorded a realized tax provision in 2022 and 2021 from equity-based awards of \$13 thousand and \$35 thousand, respectively, related to options exercised.

10. Income taxes

The components of the income tax benefit are as follows:

	Ι	December				
(In thousands)	2022		2021			
Current:						
Federal	\$	149	\$ 26			
State		110	51			
Foreign		(83)	2			
		176	79			
Deferred:						
Federal	(1	,924)	(2,057)			
State		(217)	(62)			
Foreign		-	(2)			
	(2	,141)	(2,121)			
Income tax benefit	\$ (1	,965)	\$ (2,042)			

Our effective tax rates were (24.9%) and (33.6%) for 2022 and 2021, respectively. The tax benefit recorded for 2022 includes the recognition of stock option cancellations for which no benefit was realized and the benefit recorded for 2021 included the recognition of the gain on the forgiveness of the PPP Loan which was not taxable.

At December 31, 2022, we have \$10.9 million of federal net operating loss carryforwards (with an unlimited carryforward), \$0.2 million of tax-effected state net operating loss carryforwards (which have varying lives), \$1.2 million in R&D credit carryforwards (which generally have a twenty year life), and no state tax credit carryforwards. Foreign income (loss) before taxes was \$24 thousand and (\$404) thousand in 2022 and 2021, respectively.

Deferred income taxes arise from temporary differences between the tax basis of assets and liabilities and their reported amounts in the Consolidated Financial Statements. Our deferred tax assets and liabilities were comprised of the following:

(In thousands) Deferred tax assets: Federal net operating losses Foreign net operating losses	 2022	-	
Federal net operating losses		4	2021
Earnight not operating losses	\$ 2,297	\$	1,978
Foreign net operating losses	676		624
State net operating losses	149		-
Depreciation	-		306
Capitalized R&D expenses	1,708		-
Inventory reserves	648		710
Deferred revenue	41		24
Warranty reserve	17		22
Stock compensation expense	769		796
Other accrued compensation	222		308
R&D credit carryforward	1,238		901
Other liabilities and reserves	463		250
Gross deferred tax assets	 8,228		5,919
Valuation allowance	(656)		(733)
Net deferred tax assets	7,572		5,186
Deferred tay liabilities			

Deteried tax infolities.		
Depreciation	196	-
Other	 49	 43
Net deferred tax liabilities	245	 43
Total net deferred tax assets	\$ 7,327	\$ 5,143

As of December 31, 2022 and 2021, we had a \$656 thousand and \$733 thousand, respectively, of valuation allowances on our net operating loss carryforwards. The following table summarizes the activity recorded in the valuation allowance on the deferred tax assets:

	Ye	cember 31,		
(In thousands)	2	2022		2021
Balance, beginning of period	\$	733	\$	659
Subtractions released to income tax provisions		(77)		-
Additions charged to income tax provision		_		74
Balance, end of period	\$	656	\$	733

Differences between the U.S. statutory federal income tax rate and our effective income tax rate are analyzed below:

	Year Ended Dec	ember 31,
	2022	2021
Federal statutory rate	21.0%	21.0%
PPP loan forgiveness	_	7.4
R&D credit	4.3	7.1
Stock award excess tax benefit	_	0.3
State income taxes, net of federal income taxes	1.1	0.1
Business meals and entertainment	_	(0.2)
Miscellaneous permanent items	_	(0.3)
Uncertain tax positions	(0.5)	(0.4)
Stock option cancellations	(1.9)	(0.6)
Valuation allowance and tax accruals	1.0	(1.2)
Other	(0.1)	0.4
Effective tax rate	24.9%	33.6%

We had \$142 thousand and \$144 thousand of total gross unrecognized tax benefits at December 31, 2022 and 2021, respectively that, if recognized, would favorably affect the effective income tax rate in any future periods. We are not aware of any events that could occur within the next twelve months that could cause a significant change in the total amount of unrecognized tax benefits. A tabular reconciliation of the gross amounts of unrecognized tax benefits at the beginning and end of the year is as follows:

	Dec	ember 3	ver 31,		
(In thousands)	2022		2021		
Balance, beginning of period	\$ 14	14 \$	121		
Tax positions taken during the current period		26	47		
Lapse of statute of limitations	(28)	(24)		
Balance, end of period	\$ 1·	42 \$	144		

We expect \$28 thousand of the \$142 thousand of unrecognized tax benefits will reverse in 2023 upon the expiration of the statute of limitations.

We recognize interest and penalties related to uncertain tax positions in the income tax provision. We have accrued interest and penalties related to uncertain tax positions of \$34 thousand and \$20 thousand as of December 31, 2022 and 2021, respectively.

We are subject to U.S. federal income tax as well as income tax of certain state and foreign jurisdictions. We have substantially concluded all U.S. federal income tax, state and local, and foreign tax matters through 2018. However, our federal tax returns for the years 2019 through 2022 remain open to examination. Various state and foreign tax jurisdiction tax years remain open to examination as well, though we believe that any additional assessment would be immaterial to the Consolidated Financial Statements.

11. Earnings per share

Earnings per share was computed as follows (in thousands, except per share amounts):

	Y	ears Ended I	Decemt	oer 31,
		2022	4	2021
Net loss	\$	(5,936)	\$	(4,041)
Shares:				
Basic: Weighted average common shares outstanding		9,905		9,298
Add: Dilutive effect of outstanding equity awards as determined by the treasury stock method		_		-
Diluted: Weighted average common and common equivalent shares outstanding		9,905		9,298
			-	
Net loss per common share:				
Basic	\$	(0.60)	\$	(0.43)
Diluted		(0.60)		(0.43)

The computation of diluted earnings per share excludes the effect of the potential exercise of stock awards, including stock options, restricted stock units and performance stock awards, when the average market price of the common stock is lower than the exercise price of the related stock award during the period. These outstanding stock awards are not included in the computation of diluted earnings per share because the effect would be anti-dilutive. Furthermore, in periods when a net loss is reported, such as 2022 and 2021, basic and diluted net loss per common share are calculated using the same method. Anti-dilutive stock awards excluded from the computation of earnings per dilutive share were 1,463,000 and 391,000 at December 31, 2022 and 2021, respectively.

12. Stock repurchase program

We use the cost method to account for treasury stock purchases, under which the price paid for the stock is charged to the treasury stock account. Repurchases of our common stock are accounted for as of the settlement date. During 2022 and 2021, we did not repurchase any shares of our common stock. From January 1, 2005 through December 31, 2019, we repurchased a total of 4,044,842 shares of common stock for \$32.1 million, at an average price of \$7.94 per share.

13. Geographic area information

Information regarding our operations by geographic area is contained in the following table. These amounts in the geographic area table are based on the location of the customer and asset.

	Y	ears Ended	December 31,			
(In thousands)		2022		2021		
Net sales:						
United States	\$	44,034	\$	32,400		
International		14,105		6,986		
Total	\$	58,139	\$	39,386		
Fixed assets, net:						
United States	\$	2,252	\$	1,770		
International		529		914		
Total	\$	2,781	\$	2,684		

Sales to international customers were 24% and 18% of total sales in 2022 and 2021, respectively. Sales to Europe represented 68% and 53%, sales to the Pacific Rim (which includes Australia and Asia) represented 28% and 35%, and sales to Canada represented 4% and 11% of total international sales in 2022 and 2021, respectively. International long-lived assets consist of net fixed assets located at our foreign subsidiary in the UK, as well as our contract manufacturer in Thailand.

14. Leases

Operating lease expense was \$1.0 million for both years ended December 31, 2022 and 2021 and is reported as "Cost of sales," "Engineering, design and product development expense," "Selling and marketing expense," and "General and administrative expense" in the Consolidated Statements of Operations. Operating costs include short-term lease costs, which were immaterial during the period.

The following information represents supplemental disclosure for the statement of cash flows related to operating leases (in thousands):

	Ye	Years Ended December 31,		
	2	2022	2	021
Operating cash outflows from leases	\$	967	\$	982

The following summarizes additional information related to our leases:

	Years Ended I	December 31,
	2022	2021
Weighted average remaining lease term (in years)	2.7	3.5
Weighted average discount rate	4.5%	4.4%

The maturity of the Company's operating lease liabilities are as follows (in thousands):

	December 31,	
	_	2022
2023	\$	972
2024		1,022
2025		710
2026		20
Total undiscounted lease payments		2,724
Less imputed interest		166
Total lease liabilities	\$	2,558



15. Quarterly results of operations (unaudited)

Our quarterly results of operations for 2022 and 2021 are as follows:

		Quarter Ended								
(In thousands, except per share amounts)	Ma	March 31		June 30		September 30		cember 31		
2022:										
Net sales	\$	9,702	\$	12,623	\$	17,856	\$	17,958		
Gross profit		2,566		5,434		8,193		8,219		
Net (loss) income		(4,348)		(2,376)		528		260		
Net (loss) income per common share:										
Basic		(0.44)		(0.24)		0.05		0.03		
Diluted		(0.44)		(0.24)		0.05		0.03		
2021:										
Net sales	\$	8,301	\$	9,325	\$	10,637	\$	11,123		
Gross profit		3,339		3,432		4,305		4,306		
Net (loss) income		(2,089)		(2,030)		901		(823)		
Net (loss) income per common share:										
Basic		(0.23)		(0.23)		0.10		(0.08)		
Diluted		(0.23)		(0.23)		0.09		(0.08)		

16. Change in accounting principle

Effective April 1, 2022, TransAct changed its method of inventory valuation from standard costing which approximated the FIFO costing methodology to the average costing methodology. We believe this methodology is preferable because it reflects a better estimate of inventory cost as we do not typically perform intensive manufacturing of our finished products, which are therefore better measured under average cost. In addition, our business is projected to include an increasing sales volume of software going forward, which better aligns with average costing. Comparative financial statements of prior periods have been adjusted to apply the new method retrospectively. Tax effects are calculated at the Company's marginal tax rate, or the tax impact of incremental income changes rather than the average tax rate applied to our total net loss before income taxes. The following financial statement line items for the periods presented were impacted by the change in accounting principle.

The effect of the changes made to the Company's Consolidated Balance Sheets for the periods presented are as follows:

		Ι	Decemb	er 31, 2021	L	
	-	nder O Cost	Under Average Cost		Eff of Ch	
Inventories	\$	7,720	\$	7,711	\$	(9)
Deferred tax assets		5,141		5,143		2
Retained earnings		15,573		15,566		(7)

The ending balance in retained earnings as of December 31, 2020 was adjusted from \$19,718 to \$19,607.

The effect of the changes made to the Company's Consolidated Statements of Operations for the periods presented are as follows:

		Three mon	ths e	nded Decemb	er 3	31, 2021	Year ended December 31, 2021						
	-	Under FO Cost	Under Average Cost			Effect of Change				Under Average Cost		Effect of Change	
Cost of sales	\$	6,705	\$	6,817	\$	112	\$	24,137	\$	24,004	\$	(133)	
Gross profit		4,418		4,306		(112)		15,249		15,382		133	
Operating loss		(2,485)		(2,597)		(112)		(9,510)		(9,377)		133	
Loss before income taxes		(1,124)		(1,236)		(112)		(6,216)		(6,083)		133	
Income tax benefit		389		413		24		2,071		2,042		(29)	
Net loss		(735)		(823)		(88)		(4,145)		(4,041)		104	
Net loss per common share:													
Basic	\$	(0.07)	\$	(0.08)	\$	(0.01)	\$	(0.45)	\$	(0.43)	\$	0.02	
Diluted	\$	(0.07)	\$	(0.08)	\$	(0.01)	\$	(0.45)	\$	(0.43)	\$	0.02	
Shares used in per-share calculation:													
Basic		9,848		9,848				9,298		9,298			
Diluted		9,848		9,848				9,298		9,298			

The effect of the changes made to the Company's Consolidated Statements of Comprehensive Loss for the periods presented are as follows:

	Three	mon	ths ende	d Decemb	1, 2021		Year ei	nded 1	December 3	l , 2 0	21	
	Under					Under		Under		Effect		
	FIFO Co	st	Avera	ge Cost		of Change	ł	FIFO Cost	Ave	erage Cost		of Change
Net loss	\$	735)	\$	(823)	\$	(88)	\$	(4,145)	\$	(4,041)	\$	104
Comprehensive loss		662)		(750)		(88)		(3,964)		(3,860)		104

The effect of the changes made to the Company's Consolidated Statements of Cash Flows for the periods presented are as follows:

		Year en	ded Dec	ember 31	L , 2 0	21
	-	nder O Cost	Under Average Cost			Effect of Change
Net loss	\$	(4,145)	\$	(4,041)	\$	104
Deferred income tax benefit		(2,150)		(2,121)		29
Inventories		3,573		3,440		(133)

The effect of the changes made to the Company's Consolidated Statements of Changes in Shareholders' Equity for the periods presented are as follows:

		Three mon	ths en	ded Decemb	er 3	1, 2021		21				
	-	Under Under FIFO Cost Average Cost		Effect of Change		Under FIFO Cost		Under Average Cost		Effect of Change		
Equity beginning balance	\$	39,280	\$	39,361	\$	81	\$	30,236	\$	30,125	\$	(111)
Retained earnings - beginning of period		16,308		16,389		81		19,718		19,607		(111)
Net loss		(735)		(823)		(88)		(4,145)		(4,041)		104
Retained earnings - end of period		15,573		15,566		(7)		15,573		15,566		(7)
Equity ending balance		38,991		38,984		(7)		38,991		38,984		(7)

17. Subsequent events

In the first quarter of 2023, we collected the \$1.5 million employee retention credit receivable from the U.S. Government. The Company has evaluated all other events or transactions that occurred up to the date the consolidated financial statements were available to issue. Based upon this review, the Company did not identify any other subsequent events that would have required adjustment or disclosure in the consolidated financial statements.

AMENDED AND RESTATED BY-LAWS OF TRANSACT TECHNOLOGIES INCORPORATED (as of May 31, 2022)

ARTICLE I

OFFICES

Section 1.01 Registered Office. The registered office shall be in the City of Wilmington, County of New Castle, State of Delaware.

Section 1.02 Other Offices. The corporation may also have offices at such other places both within and without the State of Delaware as the board of directors may from time to time determine or the business of the corporation may require.

ARTICLE II

MEETINGS OF STOCKHOLDERS

Section 2.01 Meetings of Stockholders. All meetings of the stockholders shall be held in Wallingford, Connecticut, at such place as may be fixed from time to time by the board of directors, or at such other place either within or without the State of Delaware as shall be designated from time to time by the board of directors and stated in the notice of the meeting or in a duly executed waiver of notice thereof.

Section 2.02 Annual Meetings of Stockholders. Annual meetings of stockholders shall be held on the first Thursday in May, unless such day is a legal holiday, (in which case the meeting will be held on the next secular day following), or on such other date and at such other time as shall be designated from time to time by the board of directors and stated in the notice of the meeting, at which they shall elect by a plurality vote a board of directors, and transact such other business as may properly be brought before the meeting.

Section 2.03 Notice of Annual Meeting. Written notice of the annual meeting stating the place, date and hour of the meeting shall be given to each stockholder entitled to vote at such meeting not less than ten (10) nor more than sixty (60) days before the date of the meeting.

Section 2.04 List of Stockholders. The officer who has charge of the stock ledger of the corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting at least ten days prior to the meeting in the manner required by Section 219 of the General Corporation Law of the State of Delaware. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present.

Section 2.05 Special Meetings of Stockholders. Special meetings of the stockholders for any purpose or purposes, unless otherwise prescribed by statute may be called by the Chair of the Board and shall be called by the Chair of the Board or Secretary at the request in writing of the board of directors, or at the request in writing (and not by electronic transmission) signed by stockholders owning 50% in amount of the entire capital stock of the corporation issued and outstanding and entitled to vote thereon, delivered by registered mail or hand delivery to the Secretary of the corporation. Each such request shall state the purpose or purposes of the proposed meeting (and the nominees for director election, as applicable) and shall set forth all the information that would be required by Section 2.12 of these By-Laws if the proposals (and the nominees for director election, as applicable) were submitted for action at an annual meeting of stockholders. Any stockholder may revoke a request by revocation in writing (and not by electronic transmission) delivered by registered mail or hand delivery to the secretary of the corporation at any time prior to the stockholder-requested special meeting. The board of directors shall fix the date, time and place of all special meetings of stockholders. The board of directors may present business to be transacted at any special meeting called at the request of stockholders, and may fix a record date to determine the stockholders entitled to deliver requests for a special meeting.

Section 2.06 Notice of Special Meetings of Stockholders. Written notice of a special meeting stating the place, date and hour of the meeting and the purpose or purposes for which the meeting is called, shall be given not less than ten nor more than sixty days before the date of the meeting, to each stockholder entitled to vote at such meeting.

Section 2.07 Quorum. The holders of a majority of the stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, shall constitute a quorum at all meetings of the stockholder for the transaction of business except as otherwise provided by statute or by the Certificate of Incorporation. If, however, such quorum shall not be present or represented at any meeting of the stockholders, the chair of the meeting or the stockholders entitled to vote thereat, present in person or represented by proxy, shall have the power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present or represented. At such adjourned meeting at which a quorum shall be present or represented any business may be transacted which might have been transacted at the meeting as originally notified if the adjournment is for more than thirty days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

Section 2.08 Majority Voting. When a quorum is present at any meeting, the affirmative vote of the holders of a majority of the voting power of the stock present in person or represented by proxy and entitled to vote on the subject matter shall decide any question brought before such meeting, unless the question is one upon which by express provision of the statutes or of the Certificate of Incorporation or these By-Laws, a different vote is required in which case such express provision shall govern and control the decision of such question.

Section 2.09 Voting Rights. Unless otherwise provided in the Certificate of Incorporation each stockholder shall at every meeting of the stockholders be entitled to one vote in person or by proxy for each share of the capital stock having voting power held by such stockholder, but no proxy shall be voted on after three years from its date, unless allowed by the laws of the State of Delaware or unless the proxy provides for a longer period.

Section 2.10 Conduct of Meeting. The Chair of the Board, or any other person designated by the board of directors or the Chair of the Board, shall act as chair of and preside at any meeting of the stockholders. Each of the chair of the meeting and the board of directors shall have the authority to adopt and enforce rules for conducting the meeting, including to determine when the polls will open and close on business, the order of conducting business and rules requiring advance notice to the corporation of stockholder attendance. The chair of the meeting may adjourn or recess any meeting of stockholders.

Section 2.11 Submission of Information by Director Nominees. To be eligible for election or re-election as a director of the corporation, a person must deliver in writing to the Secretary at the principal executive offices of the corporation (by registered mail or hand delivery) the following:

(1) a statement that such person is not (and will not become) a party to any agreement or understanding with any person other than the corporation with respect to any direct or indirect compensation, reimbursement or indemnification in connection with service or action as a nominee or as a director that has not been disclosed to the corporation;

(2) a statement that such person, if elected or re-elected as a director, intends to comply with all policies, principles and guidelines of the corporation with respect to codes of conduct, corporate governance, conflict of interest, confidentiality, stock ownership and trading applicable to directors of the corporation, which will be promptly provided following a request therefor;

(3) all completed and signed questionnaires requested by the corporation (including those questionnaires required of the corporation's current or prospective directors and any other questionnaire the corporation determines is necessary or advisable to assess whether a nominee will satisfy any qualifications or requirements imposed by the Certificate of Incorporation, these By-Laws, the corporation's corporate governance policies or any law, rule, regulation or listing requirement that may be applicable to the corporation), which will be promptly provided following a request therefor; and

(4) for each prospective director, such person's written consent authorizing the corporation to run a background check in accordance with the corporation's policy for prospective directors and such person's agreement to provide any information requested by the corporation that is necessary to run such background check.

Section 2.12 Notice of Stockholder Business and Nominations.

(1) Nominations of persons for election to the board of directors and the proposal of business to be transacted by the stockholders may be made at an annual meeting of stockholders (a) pursuant to the corporation's proxy materials with respect to such meeting, (b) by or at the direction of the board of directors, or (c) by any stockholder of record of the corporation (the "Record Stockholder") at the time of the giving of the notice required in the following paragraph, who is entitled to vote at the meeting and who has complied with the notice procedures set forth in this section. For the avoidance of doubt, the foregoing clause (c) shall be the exclusive means for a stockholder to make nominations or propose business (other than business included in the corporation's proxy materials pursuant to Rule 14a-8 under the Securities Exchange Act of 1934, as amended (such act, and the rules and regulations promulgated thereunder, the "Exchange Act")) at an annual meeting of stockholders.

For nominations or business to be properly brought before an annual meeting by a Record Stockholder (2)pursuant to clause (c) of the foregoing paragraph, (a) the Record Stockholder must have given timely notice thereof in writing (and not by electronic transmission) to the Secretary of the corporation, (b) any such business must be a proper matter for stockholder action under Delaware law and (c) the Record Stockholder and the beneficial owner, if any, on whose behalf any such proposal or nomination is made, must have acted in accordance with the representations set forth in the Solicitation Statement required by Section 2.12(3)(c)(iv) of these By-Laws. To be timely, a Record Stockholder's notice shall be received by the Secretary at the principal executive offices of the corporation not less than 60 or more than 90 days prior to the one-year anniversary of the date on which the corporation first mailed its proxy materials for the preceding year's annual meeting of stockholders; provided, however, that, subject to the last sentence of this Section 2.12(2), if the meeting is convened more than 30 days prior to or delayed by more than 30 days after the anniversary of the preceding year's annual meeting, or if no annual meeting was held in the preceding year, notice by the Record Stockholder to be timely must be so received not later than the close of business on the later of (i) the 90th day before such annual meeting or (ii) the 10th day following the day on which public announcement of the date of such meeting is first made. Notwithstanding anything in the preceding sentence to the contrary, in the event that the number of directors to be elected to the board of directors is increased and there has been no public announcement naming all of the nominees for director or indicating the increase in the size of the board of directors made by the corporation at least 10 days before the last day a Record Stockholder may deliver a notice of nomination in accordance with the preceding sentence, a Record Stockholder's notice required by this bylaw shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be received by the Secretary at the principal executive offices of the corporation not later than the close of business on the 10th day following the day on which such public announcement is first made by the corporation. In no event shall an adjournment, or postponement of an annual meeting for which notice has been given, commence a new time period for the giving of a Record Stockholder's notice.

(3) Such Record Stockholder's notice shall set forth:

a. if such notice pertains to the nomination of directors, as to each person whom the Record Stockholder proposes to nominate for election or reelection as a director, all information relating to such person as would be required to be disclosed in solicitations of proxies for the election of such nominees as directors pursuant to Regulation 14A under the Exchange Act, such person's written consent to serve as a director for the full term if elected, and all information required to be submitted under Section 2.11 of these By-Laws;

b. as to any business that the Record Stockholder proposes to bring before the meeting, a brief description of such business, the reasons for conducting such business at the meeting and any material interest in such business of such Record Stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and

c. as to (1) the Record Stockholder giving the notice and (2) the beneficial owner, if any, on whose behalf the nomination or proposal is made (each, a "party"):

(i) the name and address of each such party;

(ii) (A) the class, series, and number of shares of the corporation that are owned, directly or indirectly, beneficially and of record by each such party, (B) any option, warrant, convertible security, stock appreciation right, or similar right with an exercise or conversion privilege or a settlement payment or mechanism at a price related to any class or series of shares of the corporation or with a value derived in whole or in part from the value of any class or series of shares of the corporation, whether or not such instrument or right shall be subject to settlement in the underlying class or series of capital stock of the corporation or otherwise (a "Derivative Instrument") directly or indirectly owned beneficially by each such party, and any other direct or indirect opportunity to profit or share in any profit derived from any increase or decrease in the value of shares of the corporation, (C) any proxy, contract, arrangement, understanding, or relationship pursuant to which either party has a right to vote, directly or indirectly, any shares of any security of the corporation, (D) any short interest in any security of the corporation held by each such party (for purposes of this Section 2.12(3), a person shall be deemed to have a short interest in a security if such person directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has the opportunity to profit or share in any profit derived from any decrease in the value of the subject security), (E) any rights to dividends on the shares of the corporation owned beneficially directly or indirectly by each such party that are separated or separable from the underlying shares of the corporation, (F) any proportionate interest in shares of the corporation or Derivative Instruments held, directly or indirectly, by a general or limited partnership in which either party is a general partner or, directly or indirectly, beneficially owns an interest in a general partner and (G) any performance-related fees (other than an asset-based fee) to which each such party is directly or indirectly entitled based on any increase or decrease in the value of shares of the corporation or Derivative Instruments, if any, as of the date of such notice, including without limitation any such interests held by members of each such party's immediate family sharing the same household (which information set forth in this paragraph shall be supplemented by such stockholder or such beneficial owner, as the case may be, not later than 10 days after the record date for determining the stockholders entitled to vote at the meeting; provided, that if such date is after the date of the meeting, not later than the day prior to the meeting);

(iii) any other information relating to each such party that would be required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for, as applicable, the proposal and/or the election of directors in a contested election pursuant to Section 14 of the Exchange Act; and

(iv) a statement whether or not each such party will deliver a proxy statement and form of proxy to holders of at least a majority of the voting power of the common stock outstanding and/or intends otherwise to solicit proxies from stockholders in support of such proposal or nomination (such statement, a "Solicitation Statement").

(4) A person shall not be eligible for election or re-election as a director at an annual meeting of stockholders, and no other business shall be conducted at an annual meeting of stockholders, in each case, except in accordance with the procedures set forth in this section. The chair of the meeting shall have the power and authority to determine whether a nomination or any business proposed to be brought before the meeting has been made in accordance with the procedures set forth in these By-Laws.

Nominations of persons for election to the board of directors may be made at a special meeting of (5)stockholders at which directors are to be elected pursuant to the corporation's notice of meeting: (i) by or at the direction of the board of directors; or (ii) by any stockholder of the corporation who is a Record Stockholder at the time the notice provided for in this Section 2.12(5) is delivered to the secretary of the corporation, who is entitled to vote at the meeting and who delivers notice thereof in writing (and not by electronic transmission) setting forth the information required by Section 2.12(3) above and provides the additional information required by Section 2.11 above. In the event the corporation calls a special meeting of stockholders (other than a stockholder-requested special meeting) for the purpose of electing one or more directors to the board of directors, any Record Stockholder entitled to vote in such election of directors may nominate a person or persons (as the case may be) for election to such position(s) as specified in the corporation's notice of meeting, if the notice required by this Section 2.12(5) shall be received by the Secretary at the principal executive offices of the corporation not later than the close of business on the later of the 90th day prior to such special meeting or the 10th day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the board of directors to be elected at such meeting. In no event shall an adjournment, or postponement of a special meeting for which notice has been given, commence a new time period for the giving of a stockholder of record's notice. Notwithstanding any other provision of these By-Laws, in the case of a stockholder-requested special meeting, no stockholder may nominate a person for election to the board of directors or propose any other business to be considered at the meeting, except for the nominations and/or business set forth in the written request(s) delivered for such special meeting pursuant to Section 2.05.

(6) For purposes of these By-Laws, "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or a comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act.

(7) Notwithstanding the foregoing provisions of this Section 2.12, a Record Stockholder shall also comply with all applicable requirements of the Exchange Act with respect to matters set forth in this Section 2.12. Nothing in this Section 2.12 shall be deemed to affect any rights of stockholders to request inclusion of proposals in the corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act.

ARTICLE III

DIRECTORS

Section 3.01 Election of Directors. The number of directors which shall constitute the whole board shall be determined by resolution adopted by the board of directors. The directors shall be elected at the annual meeting of the stockholders, except as provided in Section 3.02 of this Article.

Section 3.02 Vacancies on Board of Directors. Except as otherwise required by law, vacancies and newly created directorships resulting from any increase in the authorized number of directors may be filled by the affirmative vote of a majority of the directors then in office, though less than a quorum, or by a sole remaining director. Any director appointed in accordance with the preceding sentence shall hold office (a) if appointed prior to the third annual meeting of stockholders following the annual meeting of stockholders in 2022, for a term that shall coincide with the remaining term of that class to which such director has been elected expires or (b) if appointed at or following the third annual meeting of stockholders in 2022, for a term expiring at the next annual meeting of stockholders, and in each case shall serve until such director's successor has been duly elected and qualified, subject, however, to prior death, resignation, retirement, disqualification or removal from office. No decrease in the number of directors constituting the board shall shorten the term of any incumbent director. If at any time, by reason of death or resignation or other cause, the corporation should have no directors in office, then any officer or any stockholder or an executor, administrator, trustee or guardian of a stockholder, or other fiduciary entrusted with like responsibility for the person or estate of a stockholder, may call a special meeting of stockholders in accordance with the provisions of the Certificate of Incorporation or these By-Laws, or may apply to the Court of Chancery for a decree summarily ordering an election as provided by law.

Section 3.03 Powers of Board of Directors. The business of the corporation shall be managed by its board of directors which may exercise all such powers of the corporation and do all such lawful acts and things as are not by statute or by the Certificate of Incorporation directed or required to be exercised or done by the stockholders.

Section 3.04 Meetings of Board of Directors. The board of directors of the corporation may hold meetings, both regular and special, either within or without the State of Delaware.

Section 3.05 First Meeting of Board of Directors. The first meeting of each newly elected board of directors shall be held at such time and place as shall be fixed by the vote of the stockholders or incorporators and no notice of such meeting shall be necessary to the newly elected directors in order legally to constitute the meeting, provided a quorum shall be present. In the event of the failure of the stockholders or the incorporators to fix the time or place of such first meeting of the newly elected board of directors, or in the event such meeting is not held at the time and place so fixed by the stockholders or the incorporators, the meeting may be held at such time and place as shall be specified in a notice given as hereinafter provided for special meetings of the board of directors, or as shall be specified in a written waiver signed by all of the directors.

Section 3.06 Regular Meetings of Board of Directors. Regular meetings of the board of directors may be held without notice at such time and at such place as shall from time to time be determined by the board.

Section 3.07 Special Meetings of Board of Directors. Special meetings of the board of directors may be called by the Chair of the Board, the Chief Executive Officer or the President on 24 hours' notice to each director by hand delivery, electronic transmission or telephone, or on five (5) days' notice if such notice is delivered by mail; special meetings shall be called by the Chair of the Board, Chief Executive Officer, President or Secretary in like manner and on like notice on the written request of two directors unless the board consists of only one director in which case special meetings shall be called by the Chief Executive Officer, President or Secretary in like notice on the written request of the sole director.

Section 3.08 Quorum. At all meetings of the board, a majority of the total number of directors shall constitute a quorum for the transaction of business and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the board of directors, except as may be otherwise specifically provided by statute or by the Certificate of Incorporation. If a quorum shall not be present at any meeting of the board of directors the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present.

Section 3.09 Director Consents. Any action required or permitted to be taken at any meeting of the board of directors or of any committee thereof may be taken without a meeting, if all members of the board or committee, as the case may be, consent thereto in the manner permitted by Section 141(f) of the General Corporation Law of the State of Delaware.

Section 3.10 Telephone Meetings of Board of Directors. Members of the board of directors, or any committee designated by the board of directors, may participate in a meeting of the board of directors, or any committee, by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

Section 3.11 Committee of Directors. The board of directors may, by resolution passed by a majority of the whole board, designate one or more committees, each committee to consist of one or more of the directors of the corporation. The board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the board of directors to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the board of directors, shall have and may exercise all the powers and authority of the board of directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation Law of the State of Delaware. Such committee or committees shall have such name or names as may be determined from time to time by resolution adopted by the board of directors.

Section 3.12 Committee Minutes. Each committee shall keep regular minutes of its meetings and report the same to the board of directors when required.

Section 3.13 Compensation of Directors. Unless otherwise restricted by the Certificate of Incorporation, the board of directors shall have the authority to fix the compensation of directors. The directors may be paid their expenses, if any, of attendance at each meeting of the board of directors and may be paid a fixed sum for attendance at each meeting of the board of directors or a stated salary as directed. No such payment shall preclude any director from serving the corporation in any other capacity and receiving compensation therefor. Members of special or standing committees may be allowed like compensation for attending committee meetings.

Section 3.14 Removal of Directors. Unless otherwise required by the Certificate of Incorporation or by statute or law, prior to the third annual meeting of stockholders following the annual meeting of stockholders in 2022, directors may be removed from office only for cause. From and including the third annual meeting of stockholders following the annual meeting of stockholders in 2022, directors may be removed from office at any time with or without cause. Directors may only be removed with or without cause by the affirmative vote of the holders of a majority of the voting power of all shares of the corporation entitled to vote generally in the election of directors, voting together as a single class.

Section 3.15 Chair of the Board. The Chair of the Board, if there is one, shall be elected annually by and from the board of directors and shall preside at all meetings of the directors at which the Chair of the Board shall be present. In the absence of the Chair of the Board, any other director designated by the directors present at the meeting of the board of directors shall act as chair of and preside at such meeting. A director's service as Chair of the Board shall not by itself constitute such director as an officer or employee of the corporation, except as, and solely to the extent, required by applicable law.

ARTICLE IV

NOTICES

Section 4.01 Notices. Whenever, under the provisions of the statutes or of the Certificate of Incorporation or of these By-Laws, notice is required to be given to any director or stockholder, it shall not be construed to require personal notice, but such notice may be given in writing, by mail, addressed to such director or stockholder, at such director or stockholder's address as it appears on the records of the corporation, with postage thereon prepaid, and such notice shall be deemed to be given at the time when the same shall be deposited in the United States mail. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

Section 4.02 Waiver of Notice. Whenever a notice is required to be given under the provisions of the statutes or of the Certificate of Incorporation or of these By-Laws, a waiver thereof in writing, signed by the person or persons entitled to said notice, whether before or after the time stated therein, shall be deemed equivalent thereto.

ARTICLE V

OFFICERS

Section 5.01 Necessary Officers. The officers of the corporation shall be chosen by the board of directors, having the titles and exercising the duties (as prescribed by the By-Laws or by the Board) of Chief Executive Officer, President, Vice President, Secretary, and Treasurer. The board of directors may also choose one or more Vice-Presidents, Assistant Secretaries, and Assistant Treasurers. Any number of offices may be held by the same person. No officer need be a stockholder.

Section 5.02 Election of Officers. The board of directors at its first meeting after each annual meeting of stockholders shall choose a Chair of the Board, a Chief Executive Officer, a President, a Secretary and a Treasurer.

Section 5.03 Other Officers. The board of directors may appoint such other officers and agents as it shall deem necessary who shall hold their offices for such terms and shall exercise such powers and perform such duties as shall be determined from time to time by the board.

Section 5.04 Officers, Salaries. The salaries of all officers and agents of the corporation shall be fixed by the board of directors.

Section 5.05 Term of Office. The officers of the corporation shall hold office until their successors are chosen and qualify. Any officer elected or appointed by the board of directors may be removed at any time by the affirmative vote of a majority of the board of directors. Any vacancy occurring in any office of the corporation shall be filled by the board of directors.

Section 5.06 [Reserved]

Section 5.07 Chief Executive Officer. The Chief Executive Officer shall be the principal executive officer of the corporation. It shall be the Chief Executive Officer's duty, and the Chief Executive Officer shall have the power, to see that all orders and resolutions of the board of directors are carried into effect. The Chief Executive Officer, as soon as reasonably possible after the close of each fiscal year, shall submit to the board of directors a report of the operations of the corporation for such year and a statement of its affairs, and shall from time to time report to the board of directors all matters within the Chief Executive Officer's knowledge which the interests of the corporation may require to be brought to its notice. The Chief Executive Officer shall perform such duties and have such powers additional to the foregoing as the board of directors shall designate.

Section 5.08 President. In the absence or disability of the Chief Executive Officer, the Chief Executive Officer's powers and duties shall be performed by the President. The President shall have such other powers as set forth in these By-Laws and perform such other duties as the Chair of the Board, the Chief Executive Officer or the board of directors shall from time to time designate.

Section 5.09 Vice Presidents. In the absence or disability of the President, the President's powers and duties shall be performed by the Vice President, if only one, or, if more than one, by the one designated for the purpose by the board of directors. Each Vice President shall have such other powers and perform such other duties as the board of directors shall from time to time designate.

Section 5.10 Treasurer. The Treasurer shall keep full and accurate accounts of receipts and disbursements in books belonging to the corporation and shall deposit all moneys and other valuable effects in the name and to the credit of the corporation in such depositories as shall be designated by the board of directors or in the absence of such designation in such depositories as the Treasurer shall from time to time deem proper. The Treasurer shall disburse the funds of the corporation as shall be ordered by the board of directors, taking proper vouchers for such disbursements. The Treasurer shall promptly render to the Chief Executive Officer and to the board of directors such statements of transactions and accounts as the Chief Executive Officer and board of directors respectively may from time to time require. The Treasurer shall perform such duties and have such powers additional to the foregoing as the board of directors may designate.

Section 5.11 Assistant Treasurers. In the absence of disability of the Treasurer, the Treasurer's powers and duties shall be performed by the Assistant Treasurer, if one be elected, or, if more than one, by the one designated for the purpose by the board of directors. Each Assistant Treasurer shall have such other powers and perform such other duties as the board of directors shall from time to time designate.

Section 5.12 Treasurer's Bonds. If required by the board of directors, the Treasurer shall give the corporation a bond (which shall be renewed every six years) in such sum and with such surety or sureties as shall be satisfactory to the board of directors, for the faithful performance of the duties of the Treasurer's office and for the restoration to the corporation, in case of the Treasurer's death, resignation, retirement or removal from office, of all books, papers, vouchers, money and other property of whatever kind in the Treasurer's possession or under the Treasurer's control belonging to the corporation.

Section 5.13 Secretary. The Secretary shall record in books kept for the purpose all votes and proceedings of the stockholders and of the board of directors at their meetings and shall perform like duties for the standing committees when required. Unless the board of directors shall appoint a transfer agent and/or registrar or other officer or officers for the purpose, the Secretary shall be charged with the duty of keeping, or causing to be kept, accurate records of all stock outstanding, stock certificates issued and stock transfers; and, subject to such other or different rule as shall be adopted from time to time by the board of directors, such records may be kept solely in the stock certificate books. The Secretary shall perform such duties and have such powers additional to the foregoing as the board of directors shall designate.

Section 5.14 Temporary and Assistant Secretaries. In the absence of the Secretary from any meeting of the stockholders or board of directors, if there be no Assistant Secretary, if one be elected, or, if there be more than one, the one designated for the purpose by the board of directors, otherwise a Temporary Secretary designated by the person presiding at the meeting, shall perform the duties of the Secretary. Each Assistant Secretary shall have such other powers and perform such other duties as the board of directors may from time to time designate.

ARTICLE VI

STOCK

Section 6.01 Issuance of Stock. The shares of the corporation may be certificated or uncertificated, and the board of directors may authorize the issuance of uncertificated shares of some or all of the shares of any or all of the classes or series of capital stock of the corporation. The corporation may adopt a system of issuance, recordation and transfer of shares of its capital stock by electronic or other means not involving any issuance of certificates, including provisions for notice to purchasers or other stockholders in substitution for any required statements on certificates, and as may be required by applicable law and stock exchange or market rules. Any system so adopted shall not become effective as to issued and outstanding certificated shares until the certificates therefor have been surrendered to the corporation. In the event the corporation issues shares of stock to be evidenced by certificates, each holder of such shares shall be entitled to have a certificate certifying the number of shares owned by such stockholder in the corporation, signed by or in the name of the corporation by (a) either the Chair of the Board, the Chief Executive Officer, the President or a Vice-President and (b) either the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary of the corporation.

Certificates may be issued for partly paid shares and in such case upon the face or back of the certificates issued to represent any such partly paid shares, the total amount of the consideration to be paid therefor, and the amount paid thereon shall be specified.

If the corporation shall be authorized to issue more than one class of stock or more than one series of any class and any such shares are issued in certificated form, the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualification, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificates which the corporation shall issue to represent such class or series of stock, provided that, except as otherwise provided in Section 202 of the General Corporation Law of the State of Delaware, in lieu of the foregoing requirements, there may be set forth on the face or back of the certificate which the corporation shall issue to represent such class or series of stock, a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, limitations or restrictions of such preferences and/or rights. Within a reasonable time after the issuance or transfer of uncertificated shares, the registered owner thereof shall be given a notice, in writing or by electronic transmission, containing the information required to be set forth or stated on certificates pursuant to Sections 156, 202(a), 218(a) or 364 of the General Corporation Law of the State of Delaware or with respect to Section 151 a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, required to be set forth or stated on certificates pursuant to Sections 156, 202(a), 218(a) or 364 of the General Corporation Law of the State of Delaware or with respect to Section 151 a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualification required to be set forth or stated on certificates pu

Except as otherwise expressly provided by law, the rights and obligations of the holders of uncertificated shares and the rights and obligations of the holders of certificates representing stock of the same class and series shall be identical.

Section 6.02 Signature on Stock Certificates. Where a certificate is countersigned, (1) by a transfer agent other than the corporation or its employee, or (2) by a registrar other than the corporation or its employee, any other signature on the certificate may be facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile has been placed upon a certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the corporation with the same effect as if such officer, transfer agent or registrar remained as such at the date of issue.

Section 6.03 Lost Certificates. The board of directors may direct a new certificate or certificates to be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen or destroyed. When authorizing such issue of a new certificate or certificates, the board of directors may, in its discretion and as a condition precedent to the issuance thereof, require the owner of such lost, stolen or destroyed certificate or certificates, or such owner's legal representative, to advertise the same in such manner as it shall require and/or to give the corporation a bond in such sum as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen or destroyed.

Section 6.04 Transfers of Stock. Upon delivery to the corporation or the transfer agent of the corporation of proper evidence of succession, assignment or authority to transfer, and in the case of certificated shares, surrender to the corporation or the transfer agent of the corporation of a certificate for such shares, it shall be the duty of the corporation to record the transaction upon its books, and in the case of certificated shares, to issue a new certificate to the person entitled thereto and cancel the old certificate. The corporation may treat as the absolute owner of shares of capital stock of the corporation the person or persons in whose name such shares are registered on the books of the corporation. The board may make such additional rules and regulations as it may deem advisable concerning the issue and transfer of book-entry shares or certificates representing shares of the capital stock of the corporation.

Section 6.05 Fixing Record Date. In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof or entitled to receive payment of any dividend or other distribution of allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the board of directors may fix, in advance, a record date, which shall not be more than sixty (60) nor less than ten (10) days before the date of such meeting, nor more than sixty (60) days prior to any other action. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the board of directors may fix a new record date for the adjourned meeting.

Section 6.06 Registered Stockholders. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and to hold liable for calls' and assessments a person registered on its books as the owner of shares, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of the State of Delaware.

ARTICLE VII

GENERAL PROVISIONS

Section 7.01 Dividends. Dividends upon the capital stock of the corporation, subject to the provisions of applicable law, may be declared by the board of directors at any regular or special meeting, and paid either (a) out of its surplus, as defined by law, or (b) in case there shall be no such surplus, out of the corporation's net profits for the fiscal year in which the dividend is declared and/or the preceding fiscal year. If the capital of the corporation, computed in accordance with law, shall have been diminished by depreciation in the value of its property, or by losses, or otherwise, to an amount less than the aggregate amount of the capital represented by the issued and outstanding stock of all classes having a preference upon the distribution of assets, the board of directors shall not, except as allowed by the laws of the State of Delaware, declare and pay out of such net profits any dividends upon any shares of any classes of the corporation's capital stock until the deficiency in the amount of capital represented by the issued and outstanding stock of all classes having a preference upon the distribution of assets shall have been repaired. Dividends may be paid in cash, in property, or in shares of the capital stock, subject to the provisions of the Certificate of Incorporation.

Section 7.02 Reserves. Before payment of any dividend, there may be set aside out of any funds of the corporation available for dividends such sum or sums as the directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purpose as the directors may think conducive to the interest of the corporation, and the directors may modify or abolish any such reserve in the manner in which it was created.

Section 7.03 Checks. All checks or demands for money and notes of the corporation shall be signed by such officer or officers or such other person or persons as the board of directors may from time to time designate.

Section 7.04 Fiscal Year. The fiscal year of the corporation shall end on December 31.

Section 7.05 Seal. The corporate seal shall have inscribed thereon the name of the corporation, the year of its organization and the word "Delaware." The seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

Section 7.06 Indemnification and Advancement. The corporation shall indemnify any current or former director, officer, employee or agent of the corporation who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, to the full extent contemplated by Section 145 of the General Corporation Law of the State of Delaware. The corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the corporation would have the power to indemnify such person against such liability under the provisions of the General Corporation Law of the State of Delaware. The corporation's indemnity of any person who is or was a director, officer, employee or agent of the corporation shall be reduced by any amounts such person may collect as indemnification under any policy of insurance purchased and maintained on such person's behalf by the corporation.

The indemnification provided for herein shall not be deemed exclusive of any other rights to which those indemnified may be entitled under any certificate of incorporation, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

In addition to the right of indemnification granted under this Section 7.06, current and former directors and officers of the corporation shall also have the right to be paid by the corporation the expenses (including attorney's fees) incurred in defending any such action, suit or proceeding contemplated by Section 145 of the General Corporation Law of the State of Delaware in advance of the final disposition of any such action, suit or proceeding upon the corporation's receipt of an undertaking by or on behalf of such current or former director or officer to repay such amount if it shall be ultimately determined that such current or former officer or director is not entitled to be indemnified by the corporation pursuant to law or this Section 7.06.

Neither the amendment nor repeal of this Section 7.06, nor the adoption of any provisions of the Certificate of Incorporation inconsistent with this Section 7.06, shall eliminate or reduce the effect of this Section 7.06 in respect of any matter occurring, or any cause of action, suit or claim that, but for this Section 7.06 would accrue or arise, prior to such amendment, repeal or adopting of an inconsistent provision.

Section 7.07 Reliance upon Books, Reports and Records. Each director, each member of any committee designated by the board of directors, and each officer of the corporation shall, in the performance of such person's duties, be fully protected in relying in good faith upon the books of account or other records of the corporation, including reports made to the corporation by any of its officers, by an independent certified public accountant, or by an appraiser selected with reasonable care.

Section 7.08 Inspection of Books by Stockholders. Subject to the laws of the State of Delaware, the board of directors shall have the power to determine from time to time and at any time whether and to what extent and at what times and places and under what conditions and regulations the records of account, books and stock ledgers of the corporation, or any of them, shall be open to inspection and copying by stockholders, their agents or attorneys; and no stockholder, or agent or attorney of such stockholder, shall have any right to inspect or copy any record of account or book or stock ledger, or any part thereof, of the corporation, except as conferred by the laws of the State of Delaware, unless and until authorized so to do by resolution of the board of directors or of the stockholders and unless and until such stockholder agrees to comply with, and abide by, such conditions and regulations governing inspection and copying thereof, as determined by the board of directors.

Section 7.09 Transactions with Directors, Officers, etc. The corporation may enter into contracts or transactions with one or more of its directors, officers, employees or stockholders, or with any other corporation, partnership, association, or other organization in which one or more of its directors, officers, employees or stockholders are directors, officers, partners, employees or stockholders, or have a financial interest, to the full extent authorized and permitted by the laws of the State of Delaware.

Section 7.10 Forum. Unless the corporation consents in writing to the selection of an alternative forum, to the fullest extent permitted by law, all Internal Corporate Claims shall be brought solely and exclusively in the Court of Chancery of the State of Delaware (or, if such court declines to accept jurisdiction, the States District Court for the District of Delaware). "Internal Corporate Claims" means claims, including claims in the right of the corporation, brought by a current or former stockholder (including a current or former beneficial owner) (i) that are based upon a violation of a duty by a current or former director or officer or stockholder in such capacity or (ii) as to which the General Corporation Law of the State of Delaware confers jurisdiction upon the Court of Chancery of the State of Delaware.

ARTICLE VIII

AMENDMENTS

Section 8.01 Amendments. These By-Laws may be altered, amended or repealed or new By-Laws may be adopted by the stockholders, only by the affirmative vote of the holders of a majority of the common stock outstanding, or by the board of directors at any regular meeting of the stockholders or of the board of directors or at any special meeting of the stockholders or of the board of directors if notice of such alteration, amendment, repeal or adoption of new By-Laws be contained in the notice of such meeting, or by any consent of the directors executed in accordance with the Certificate of Incorporation or these By-Laws.

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the incorporation by reference in the Registration Statement of TransAct Technologies Incorporated on Form S-8 [File Nos. 333-203184, 333-132624, 333-170515, 333-221514, and 333-248054] and Form S-3 [File No. 333-248055 and 333-261026] of our report dated March 27, 2023, with respect to our audits of the consolidated financial statements of TransAct Technologies Incorporated as of December 31, 2022 and 2021 and for the years ended December 31, 2022 and 2021, which report is included in this Annual Report on Form 10-K of TransAct Technologies Incorporated for the year ended December 31, 2022.

Our report on the consolidated financial statements refers to a change in the method of accounting for its method of inventory valuation from standard cost (which approximated actual cost on a "first-in, first-out" basis) to the average cost method of inventory accounting, which was applied retrospectively to all periods presented.

/s/ Marcum LLP

Hartford, CT March 27, 2023

RULE 13a-14(a) CERTIFICATION OF CHIEF EXECUTIVE OFFICER IN ACCORDANCE WITH SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Bart C. Shuldman, certify that:

- 1. I have reviewed this Annual Report on Form 10-K of TransAct Technologies Incorporated;
- 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: March 27, 2023

/s/ Bart C. Shuldman

Bart C. Shuldman Chairman and Chief Executive Officer

RULE 13a-14(a) CERTIFICATION OF CHIEF FINANCIAL OFFICER IN ACCORANCE WITH SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

- I, Steven A. DeMartino, certify that:
- 1. I have reviewed this Annual Report on Form 10-K of TransAct Technologies Incorporated;
- 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: March 27, 2023

/s/ Steven A. DeMartino

Steven A. DeMartino President, Chief Financial Officer, Treasurer and Secretary

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

In connection with the Annual Report of TransAct Technologies Incorporated (the "Company") on Form 10-K for the period ending December 31, 2022, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned officers of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to the best of his knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 27, 2023

/s/ Bart C. Shuldman Bart C. Shuldman Chairman and Chief Executive Officer

Date: March 27, 2023

/s/ Steven A. DeMartino

Steven A. DeMartino President, Chief Financial Officer, Treasurer and Secretary