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

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

Commission file number 001-33660

CLEARONE, INC.
(Exact name of registrant as specified in its charter)

Delaware	**87-0398877**
(State or other jurisdiction of incorporation or organization)	(I.R.S. employer identification number)
5225 Wiley Post Way, Suite 500, Salt Lake City, Utah	**84116**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (801)975-7200

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

Title of each class	Trading Symbol(s)	Name on each exchange on which registered
Common Stock, $0.001 par value	CLRO	The Nasdaq Capital 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 (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). ☒Yes ☐No

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

Larger Accelerated Filer ☐
Accelerated Filer ☐
Non-Accelerated Filer ☒
Smaller Reporting Company ☒
Emerging Growth Company ☐

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its 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 shares of voting common stock held by non-affiliates was approximately $6.7 million at June 30, 2022**,** (the Company's most recently completed second fiscal quarter), based on the $0.54 closing price for the Company's common stock on the Nasdaq Capital Market on such date. For purposes of this computation, all officers, directors, and 10% beneficial owners of the registrant are deemed to be affiliates. Such determination should not be deemed to be an admission that such officers, directors, or 10% beneficial owners are, in fact, affiliates of the registrant.

The number of shares of ClearOne common stock outstanding as of March 30, 2023 was 23,955,767.

Documents Incorporated by Reference: None

CLEARONE, INC.

Annual Report on Form 10-K For the year endedDecember 31, 2022

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995. These statements reflect our views with respect to future events based upon information available to us at this time. These forward-looking statements are subject to uncertainties and other factors that could cause actual results to differ materially from these statements. Forward-looking statements are typically identified by the use of the words “believe,” “may,” “could,” “will,” “should,” “expect,” “anticipate,” “estimate,” “project,” “propose,” “plan,” “intend,” and similar words and expressions. Examples of forward-looking statements are statements that describe the proposed development, manufacturing, and sale of our products; statements that describe expectations regarding pricing trends, the markets for our products, our anticipated capital expenditures, our cost reduction and operational restructuring initiatives, and future impact of regulatory developments; statements with regard to the nature and extent of competition we may face in the future; statements with respect to the anticipated sources of and need for future financing; and statements with respect to future strategic plans, goals, and objectives and forecasts of future growth and value. Forward-looking statements are contained in this report under “Business” included in Item 1 of Part I, and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included in Item 7 of Part II of this Annual Report on Form 10-K. The forward-looking statements are based on present circumstances and on our predictions respecting events that have not occurred, that may not occur, or that may occur with different consequences and timing than those now assumed or anticipated. Actual events or results may differ materially from those discussed in the forward-looking statements as a result of various factors, including the risk factors discussed in this report under the caption “Item 1A Risk Factors.” These cautionary statements are intended to be applicable to all related forward-looking statements wherever they appear in this report. The cautionary statements contained or referred to in this report should also be considered in connection with any subsequent written or oral forward-looking statements that may be issued by us or persons acting on our behalf. Any forward-looking statements are made only as of the date of this report and we assume no obligation to update forward-looking statements to reflect subsequent events or circumstances.

PART I

References in this Annual Report on Form 10-K to "ClearOne," "we," "us," "CLRO" or "the Company" refer to ClearOne, Inc., a Delaware corporation, and, unless the context otherwise requires or is otherwise expressly stated, its subsidiaries.

ITEM 1. BUSINESS

GENERAL

ClearOne, Inc. (the Company) was incorporated in Utah in 1983 and reincorporated in Delaware on October 25, 2018. The Company is headquartered in Salt Lake City, Utah. The Company has other locations in Gainesville, Florida; Zaragoza, Spain; Chennai, India; and Dubai, United Arab Emirates.

We have been a global market leader enabling conferencing, collaboration, and network streaming solutions. We design, develop and sell conferencing, collaboration and network streaming solutions for voice and visual communications. The performance and simplicity of our advanced comprehensive solutions offer unprecedented levels of functionality, reliability and scalability.

Our comprehensive line of high-quality conferencing and collaboration products are targeted for large, medium and small businesses, as well as for personal use. We have been a global market leader in the installed professional audio conferencing market, where our products are used in numerous industries such as enterprise, healthcare, education, government, legal and finance.

We have an established history of product innovation and plan to continue to apply our expertise in audio, video and networked AV to design, develop and introduce innovative new products and enhance our existing products. Our end-users range from some of the world's largest and most prestigious companies and institutions to small and medium-sized businesses, higher education and government organizations, as well as individual consumers. We sell our commercial products to these end-users through a global network of independent distributors who, in turn, sell our products to dealers, systems integrators and other value-added resellers. We also sell directly to dealers, systems integrators and other value-added resellers. Our solutions save end-users time and money by creating a natural environment for collaboration and communication. Our partners, who are involved in system integration benefit from simpler project designs and lower support costs because our products are designed and built to work with each other seamlessly.

On September 12, 2021, the Company entered into a securities purchase agreement with certain purchasers named therein, pursuant to which the Company issued 3,623,189 shares of the Company's common stock, par value $0.001 per share at an offering price of $2.76 per share. The Company received gross proceeds of approximately $10,000,000 and net proceeds of $9,288,000 after deducting placement agent fees and related offering expenses. In a concurrent private placement the Company also issued to the same purchasers warrants exercisable for an aggregate of 3,623,189 shares of common stock at an exercise price of $2.64 per share. Each warrant became immediately exercisable and will expire on March 15, 2027.

On July 2, 2021, the Company obtained a bridge loan in the principal amount of $2,000,000 from Edward D. Bagley (the "2021 Bridge Loan"), an affiliate of the Company. The Bridge Loan was evidenced by a promissory note dated July 2, 2021 (the "Note") issued by the Company to Mr. Bagley. The Note carried interest at a rate of 8.0% per annum, and was set to mature on the earlier to occur of (i) October 1, 2021 or (ii) within two business days of the Company's receipt of its expected U.S. federal income tax refund, and contained other customary covenants and events of default. On September 11, 2021, the Company amended and restated the terms of the 2021 Bridge Loan to extend the latest maturity date from October 1, 2021 to January 3, 2022. All other terms and conditions of the Bridge Loan remained the same. On January 4, 2022, the Company entered into a Securities Purchase Agreement with Edward D. Bagley, pursuant to which the Company issued and sold to Mr. Bagley, in a private placement 1,538,461 shares (the "Shares") of the Company's common stock, par value $0.001 per share, at a purchase price of $1.30 per share of Common Stock. The consideration for the Shares was the cancellation and termination of Mr. Bagley's outstanding bridge loan to the Company in the principal amount of $2,000,000 originally issued on July 2, 2021 and amended and restated on September 11, 2021. Mr. Bagley is an affiliate of the Company and the Company's single largest stockholder.

Company Information

Our website address is http://www.clearone.com. Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to such reports are available, free of charge, on our website in the "Investor Relations" section under "Company." These reports are made available as soon as reasonably practicable after we file such material with, or furnish it to, the SEC. These reports are also available on the SEC's website, which is located at http://www.sec.gov.

ITEM 1 - BUSINESS

For a discussion of certain risks applicable to our business, results of operations, financial position, and liquidity, see the risk factors described in "Item 1A, Risk Factors" below.

Our Business Strategy

The Company's primary challenge is the loss in revenue and consequent reduction in cash flows due to operating losses. Our current strategy consists of the following elements to overcome this adverse situation:

- Continue our product innovation to bring to market products that are needed by our partners and end-users
- Cut costs to operate efficiently
- Focus on our core products and improve the quality of our products
- Resolve the issues causing delays with the transition of manufacturing by our contract manufacturer from China to Singapore

We currently participate in the following markets:

- All aspects of audio conferencing including installed professional audio conferencing through DSP mixers, USB based speakerphones and table-top conferencing;
- Professional microphones to support audio and video collaboration through patented beamforming microphones, ceiling microphones and wireless microphones;
- Visual collaboration in all forms including low-cost room appliances, professional cameras, Bring-Your-Own-Device and cloud video services; and
- Audio Visual Networking which includes network media streaming, video walls, sound reinforcement and audio distribution.

Our business goals are to:

- Improve our global market share in professional installed audio conferencing products for large businesses and organizations;
- Position ClearOne as the preferred AV channel partner uniquely offering a complete value-chain of natively integrated solutions from audio to video maximizing AV channel partner profitability;
- Extend total addressable market from our traditional stronghold of installed audio conferencing and microphones to adjacent complementary markets – video collaboration and AV networking;
- Continue to leverage the video conferencing, collaboration and AV networking technologies to enlarge our current market share;
- Focus on the small and medium business market with appropriately scaled, lower cost and less complex products and solutions;
- Capitalize on the growing influence of information technology channels in the audio-visual market and introduce more solutions to these channels;
- Capitalize on the convergence of audio visual and information technology to meet enterprise and commercial multimedia needs and the end-users' transition from high-priced systems to low cost, complete AV room solutions and cloud services;
- Improve the interoperability of our products to increase the ability of our products to work with wider range of other audio-visual products in the market;
- Pursue certifications and partnerships to position our products favorably in the burgeoning Microsoft Teams eco-system;
- Leverage software-based platforms across all our product lines; and
- Expand and strengthen our sales channels.

We will continue to focus on our core strengths, which include the following:

- Providing a superior conferencing and collaboration experience;
- Delivering the complete value chain for audio visual communication;
- Extending our capabilities in product innovation through software-based video collaboration and AV networking
- Offering greater innovation, interoperability and value to our end-users and channel partners;
- Leveraging and extending ClearOne technology, leadership and innovation;
- Focusing on our core products and improving the quality of our products to attain higher levels of customer satisfaction;

- Leveraging our strong domestic and international channels to distribute new products; and
- Strengthening existing end-user and channel partner relationships through dedicated and comprehensive support.

PRODUCTS

Our products can be broadly categorized into the following:

- Audio conferencing including installed DSP based professional audio conferencing, USB-based speakerphones and table-top audio conferencing
- Professional microphones consisting of patented beamforming microphones, ceiling microphones and wireless microphones; and
- Video products including video collaboration and AV networking

AUDIO CONFERENCING

Our full range of audio conferencing products include (i) professional installed DSP based audio conferencing and sound-reinforcement products used in enterprise, healthcare, education and distance learning, government, legal and finance organizations, (ii) mid-tier premium conferencing products for smaller rooms and small and medium businesses which interface with video and web conferencing systems, (iii) affordable USB-based speakerphones that can be used with PCs, laptops, tablets, smartphones, and other portable devices, and (iv) traditional tabletop conferencing phones used in conference rooms and offices.

Our audio conferencing products feature our proprietary HDConference®, Distributed Echo Cancellation® and noise cancellation technologies to enhance communication during a conference call by eliminating echo and background noise. Most of our products also feature some of our other HDConference proprietary audio processing technologies such as adaptive modeling and first-microphone priority, which combine to deliver clear, crisp and full-duplex audio. These technologies enable natural and fatigue-free communication between distant conferencing participants.

Our audio conferencing products contributed 47% and 40% of our consolidated revenue in 2022 and 2021, respectively.

Professional installed audio conferencing and sound reinforcement

We have been a global market leader in the professional installed audio conferencing market. We have been a pioneer in the development of high-end, professional conferencing products and we have established strong brand recognition for these products worldwide. Our installed professional conferencing products include the CONVERGE® Pro 2 and CONVERGE Pro 2 SR product lines.

Our flagship CONVERGE Pro 2product line lead our professionally installed audio products line. The CONVERGE Pro 2 product line currently includes CONVERGE Pro 2 128, CONVERGE Pro 2 128VT, CONVERGE Pro 2 128VTD, CONVERGE Pro 2 120, CONVERGE Pro 2 012, CONVERGE Pro 2 48VT and CONVERGE Pro 2 48VTD. CONVERGE Pro 2 SR product line currently includes CONVERGE Pro 2 128SR, and CONVERGE Pro 2 128SRD. CONVERGE Pro 2 and CONVERGE Pro 2 SR together offer various levels of integration and features to allow a commercial system integrator to optimize a system to fit diverse conferencing applications and environments. CONVERGE Pro 2 product line succeeded the original CONVERGE Pro product line, which is currently being phased out as our customers transition fully to CONVERGE Pro 2 product line.

CONVERGE Pro 2's broad DSP platform satisfies clients' diverse audio needs with these features:

- Best-in-class audio delivered through next-gen Acoustic Echo Cancellation and Noise Cancellation processing with Acoustic Intelligence, advanced microphone gating and built-in DARE™ feedback elimination.
- Powerful architecture – 12 Mic/line inputs per unit, built-in USB audio interface, built-in optional Dante™ for networked audio.

ITEM 1 - BUSINESS

- Daisy-chainable design to support up to 144 Mic/line inputs, C-Link expansion bus with 150 channels and P-Link bus for scalable connection of peripheral devices including any combination of ClearOne peripheral devices, such as the Beamforming Microphone Array 2, BMA CT, BMA 360, USB Expander, GPIO Expander and/or the DIALOG® 20 Wireless Microphone system.
- Supports video conferencing, audio and web conferencing, in-room meetings, wireless presentation, and more.
- Integration of VoIP or telephony, USB, and Dante™ for maximum functionality.
- Ability to control local meeting rooms and audio distribution applications with flexible options – touch panel controller, BYOD dialer apps or 3rd party control modules.
- Configure, manage, monitor and troubleshoot the entire system of auto-discovered devices with MatrixView™ and FlowView™ in CONSOLE AI for visualized audio signal paths.

The CONVERGE Pro 2 line of products is ably supported by a touch panel controller, a GPIO expansion box, a USB expansion box and a wall-mount Bluetooth Expander. CONVERGE Pro 2 VoIP SKUs are certified to interoperate with Cisco, Avaya and ShoreTel SIP based VoIP systems and also interoperate with Microsoft Teams, Zoom, Google Meet, and other popular collaboration applications.

During May 2021, we announced the immediate availability of CONVERGENCE AV Cloud, which significantly expands AV Practitioner recurring revenue opportunities for remote, real-time Management as a Service (MaaS). CONVERGENCE Cloud software is a unified AV network management platform to monitor, control, and audit ClearOne Pro Audio and Video products and services. Remote real-time system access provides at-a-glance and all-inclusive dashboard views with auto-discovery of Pro Audio devices and unlimited scalability designed to support organizations of any size. With the new Cloud option, AV Practitioners can profit on value-added MaaS opportunities to easily support multiple clients and multiple networks with fully secure, real-time remote system access on a single multi-tenant platform. The powerful and elegant user interface, in twelve languages, works on any browser and will allow full support of the AV Network with built-in video, audio, and chat tools for real-time communications as well as email and immediate SMS text alerts. Relevant information is quickly found with search, sort, and filter options. CONVERGENCE AV Cloud can be virtually partitioned for AV management by location such as building, floor, room, or any desired global topology. Practitioners can easily manage accounts, assigning three levels of access with Owner, Administrator, and Monitor roles; all housed on encrypted secure cloud servers. Client tenant usage can be conveniently tracked for invoicing and optional auto-payment reminders.

In July 2022, we introduced the CONVERGENCE® InSite server network hardware that enables remote device management by facilitating bi-directional communications between its Cloud or Enterprise AV Manager and on-site ClearOne Pro Audio products.

Mid-Tier Premium Conferencing

Our premium conferencing offerings consist of the CONVERGE Huddle and INTERACT® product lines. Premium conferencing solutions are mid-tier, lower cost, conferencing product solutions designed to meet the needs of our larger customers with smaller conferencing rooms as well as small and medium businesses. CONVERGE Huddle is a versatile solution for multiple use huddle room environments at a price point that meets budget requirements for audio and video collaboration applications. CONVERGE Huddle connects to ClearOne or third-party peripheral devices, such as microphones, speakers, cameras, and display screens and applications such as Microsoft Teams, Zoom, Google Meet, GoToMeeting ™, and WebEx® through a single clutter-free connection via USB 3.0 to a laptop. It comes with professional quality Acoustic Echo Cancellation and Noise Cancellation algorithms and user-friendly CONSOLE® software. It can be mounted easily under a table, behind a display, on a wall or in a rack. The INTERACT product series is comprised of INTERACT AT and INTERACT Pro. Both systems can be easily connected to enterprise telephones, analog POTS lines, existing HD video codecs and soft video clients. These INTERACT systems also include a USB audio interface to connect to PCs, laptops and tablets, as well as to rich multimedia devices, such as video or web conferencing systems and unified communication systems for enhanced collaboration.

Speakerphone

Our CHAT® product line of speakerphones includes affordable and stylish USB based personal and group speakerphones. CHAT speakerphones provide full-duplex and rich full bandwidth frequency response for superior audio clarity. CHAT products are designed for a wide variety of applications and devices (fixed or portable) for greatly enhanced collaboration wherever and whenever needed. CHAT speakerphones are offered either as personal speakerphones under CHAT 50, CHAT 60 or CHAT 70 SKUs or as group speakerphones under CHAT 150, CHAT 160 and CHAT 170 SKUs.

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CHAT 50/60/70 personal speakerphones are approximately the size of a deck of cards, and connect to PCs and Macs for rich, clear, hands-free audio and playback. CHAT 150 group speakerphones are designed for small group use. These can connect to the same devices and applications as the CHAT personal speakerphones but feature three microphones in larger design for use by a larger number of participants. CHAT 150/160/170 group speakerphones have the ability to add high-quality, full-duplex open audio to user enterprise telephone handsets such as Avaya and Cisco. CHAT group speakerphones make it possible to introduce rich, crystal clear conferencing capability without the need for introducing a separate traditional conference phone. CHATAttach® is comprised of two CHAT 150 group speakerphones which can be daisy-chained together to function as a single conferencing system for much larger coverage than a single CHAT 150. CHAT group speakerphones are integral to our media collaboration product line

Tabletop Conferencing

Our tabletop conferencing product line offered under the MAX® brand is comprised of the following product families: MAX EX and MAXAttach® wired conference phones; MAX Wireless and MAXAttach Wireless conference phones; and MAX IP and MAXAttach IP conferencing phones. Designed for use in executive offices or small conference rooms with multiple participants, MAX Wireless can be moved from room to room within 150 feet of its base station. MAXAttach Wireless was the industry's first and remains the only dual-phone, completely wireless solution. This system gives customers tremendous flexibility in covering larger conference room areas. MAX EX and MAXAttach wired phones can be daisy chained together, up to a total of four phones. This provides even distribution of microphones, loudspeakers, and controls for better sound quality and improved user access in medium to large conference rooms. In addition, all MAXAttach wired phones can be used separately when they are not needed in a daisy-chain configuration. MAX IP and MAXAttach IP are VoIP tabletop conference phones which are based on the industry-standard SIP signaling protocol. These phones can also be daisy-chained together, up to a total of four phones.

PROFESSIONAL MICROPHONES

Our microphones contributed 39% and 38% of our consolidated revenue in 2022 and 2021, respectively.

Beamforming Microphone Array

ClearOne began shipping the first generation Beamforming Microphone Array in March 2013. This product works with CONVERGE Pro products. Beamforming Microphone Array 2, the next generation Beamforming Microphone Array started shipping in the last quarter of 2017. It works with CONVERGE Pro2. It affirmed ClearOne's clear industry leadership with the following outstanding features:

- Significantly enhanced and new echo cancellation, with improved performance in demanding acoustic environments.
- Acoustic intelligence with adaptive ambience - faster convergence and better adaptation to changes in room acoustics, such as ambient noise from chairs moving, doors closing, chatter in the background, using separate acoustic echo cancellation for each fixed beam and inhibiting beam selection when the far end is active.
- Dramatically better mic pickup, including using an augmenting microphone signal, improving overall sound quality.
- Natural and clearly intelligible audio, even when two people speak at once.
- Zero consumption of analog I/O and signal processing in the DSP mixer leaving those resources available for other needs.
- Single cable for power, audio and control.
- Two power options – P-Link and POE.
- Daisy-chains with all ClearOne P-Link devices and works with CONVERGE Pro 2 DSP AEC mixers.
- Easy configuration and management through CONSOLE software.

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During the first quarter of 2019, the Company began shipping our patented Beamforming Microphone Array Ceiling Tile (BMA CT) to our partners. All of the innovations developed for the BMA CT make the integrator's job easier and more profitable. The BMA CT dramatically transforms how integrators can approach system design for ceiling tile installations, allowing for multi-array setups that can utilize a single, low-channel count DSP mixer while maintaining ClearOne's high level of performance and reliability. Further simplification comes from the array's built-in power amplifier, which allows each array to drive two 10-Watt, 8-Ohm loudspeakers. The BMA CT also features ClearOne's proprietary adaptive steering technology (think of it as smart switching). This provides impeccable room coverage while eliminating the need to adjust individual beams. Integrators can daisy chain ceiling tiles via P-Link (ClearOne's proprietary peripheral link) for larger conference setups – for simpler wiring and longer distances compared to networked home-run connections. P-Link also allows integrators to daisy chain additional peripherals such as wireless mics, USB Expanders, and GPIO Expanders. The system supports all of this functionality with zero consumption of analog I/O and signal processing in the DSP mixer leaving those resources available for other needs.

During the first quarter of 2020, we announced two new additions to our COLLABORATE Versa family of products. COLLABORATE® Versa Room CT, provides all the equipment and accessories needed for exceptional room cloud-based conferencing. At the heart of the system, is the USB audio-enabled Beamforming Mic Array Ceiling Tile (BMA CTH). Thanks to its onboard processing, the BMA CTH performs acoustic echo cancellation, noise cancellation, and beam selection, so no external DSP mixer is required. The array's adaptive steering (think of it as smart switching) provides impeccable room coverage. The Versa Room CT brings cost-effective professional conferencing audio to small and mid-sized meeting rooms. COLLABORATE Versa Lite CT is a USB audio enabled BMA CTH room solution. This solution dramatically enhances the audio experience for any cloud-collaboration application such as Zoom, Microsoft Teams, and Webex, without the need for a DSP mixer. The system can be easily and quickly configured using ClearOne's CONSOLE® AI Lite software with Audio Intelligence™ and Auto Connect™. A laptop or a desktop PC can be connected to the BMA CTH directly through the USB port on the Versa USB to share room audio. The included 50-foot CAT6 cable connects the Versa USB Expander to the BMA CTH.

During October 2020, we announced BMA 360, the world's most technologically advanced Beamforming Microphone Array Ceiling Tile, delivering unequaled audio performance and deployment ease. The ClearOne BMA 360 is the world's first truly wideband, frequency invariant beamforming mic array with uniform gain response across all frequency bands. With FiBeam™ technology, conference participants will experience the ultimate in natural and full fidelity audio across all beams and within a single beam. Deep sidelobe beamforming, DsBeam™, provides unparalleled maximum sidelobe depth, below -40 dB, resulting in superior rejection of reverberation and noise in difficult spaces for superb clarity and intelligibility.

The BMA 360 is based on a dramatically new approach to beamforming that provides a new beam topology to easily achieve distortion-free, full 360-degree coverage of any room shape and any seating arrangement using ClearOne Audio Intelligence™. Further advancements in adaptive steering (think of it as smart switching) provide impeccable coverage of each conference participant as well as support for camera tracking. In addition to the advancements in beamforming technology, the 6G Acoustic Echo Cancellation (AEC) delivers unmatched per-beam full-duplex audio performance. On-board audio algorithms, like noise reduction, filtering, and Automatic Level Control, eliminate the need for per-beam processing in a DSP mixer - requiring fewer DSP mixer resources. Finally, robust built-in amplifiers, configurable as 4 x 15 Watt or 2 x 30 Watt, provide flexibility for driving loudspeakers. ClearOne's breakthrough technologies, FiBeam, DsBeam, and 6G AEC combine to create VividVoice™, a significant advancement for professional conferencing. The integrated features in the BMA 360 significantly reduce system design complexity, simplify installation, consume less rack space, and lower system cost. The BMA 360 also supports daisy-chaining of up to three ceiling tiles via P-Link for divisible rooms, or larger conference setups – for simpler wiring, longer distances, and lower-cost deployments compared to networked "home-run" connections via Ethernet. ClearOne's BMA technology is protected by at least a dozen patents and pending patent applications.

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During February 2021, we expanded the applications for our BMA 360, Beamforming Microphone Array Ceiling Tile with the addition of a new Voice Lift feature that allows its impeccable audio to be locally amplified and heard throughout classrooms, lecture halls, and large meeting rooms. ClearOne's powerful breakthrough technologies, FiBeam™ and DsBeam™, already found on the BMA 360, enable exceptional new levels of Voice Lift performance. FiBeam technology makes the BMA 360 the world's first truly wideband, frequency-invariant beamforming mic array that provides the ultimate in natural and full-fidelity sound. DsBeam provides unparalleled sidelobe depth below -40 dB, resulting in superior rejection of reverb and noise and providing superb clarity and intelligibility. With the addition of the new Voice Lift feature, the BMA 360 offers everything desired in a beamforming microphone array ceiling tile—superior beamformed audio, echo cancellation, noise cancellation, auto-mixing, power amplifiers, and camera-tracking functions. The ClearOne architecture offers easy setup and configuration for foolproof installation which benefits AV practitioners. End-users also benefit from the BMA 360's reduced overall system cost for maximum return on investment. Each BMA 360 can have up to four Voice Lift zones to provide a simple and intuitive way to drive multiple speaker groups, allowing everyone to easily hear and be heard. Built-in 4 channel power amplifiers make wiring simple, convenient, and provide a large cost savings. ClearOne's innovative combination of built-in power amplifiers and mix-minus zones makes the Voice Lift feature extremely simple to create and deploy. The BMA 360, now with Voice Lift, sets another industry standard for exceptional mic pickup distance and system gain.

Ceiling Microphone Array

The ClearOne Ceiling Microphone Array enhances almost any professional conferencing application which demands high-quality audio. The Ceiling Microphone Array is easily installed and combines affordability with exceptional audio quality. With three wide-range microphones mounted together into a single unit array, the Ceiling Microphone Array provides the rich sound of three individual unidirectional microphones while maintaining full 360-degree coverage.

This product line was further strengthened in 2018 by the introduction of the Ceiling Microphone Array Analog-X series of ceiling microphones. These products feature superior sound quality, adjustability for desired height from 0 to 7 feet and numbered microphone elements for easy identification. This product line was further expanded with the introduction of Ceiling Microphone Array Dante, a tri-element ceiling microphone array with built-in Dante audio networking for conferencing and sound reinforcement applications. Each Ceiling Microphone Array Dante utilizes three premium quality microphone elements to deliver 360-degree room coverage for boardrooms, conference rooms, telemedicine facilities and more. Dante networking technology offers simple installation with CAT5 or CAT6 cabling, and delivers uncompressed, multi-channel audio with near-zero latency and sample accurate time synchronization throughout the network.

Wireless Microphones

In 2013, ClearOne introduced WS800 Wireless Microphone Systems, including four new models of wireless microphones/transmitters (Tabletop/boundary, Gooseneck, Handheld, Bodypack) and a base-station receiver with either 4 or 8 channels, which connect to professional audio mixers. Since the Sabine acquisition in 2014, our portfolio of wireless microphone systems was enhanced by the introduction of digital compressed versions, Dante compatible versions and more frequency ranges catering to various international markets.

During 2017, we started shipping DIALOG® 20, the two-channel wireless microphone system. Leveraging the full power of ClearOne's robust, adaptive frequency-hopping "spread" spectrum technology within the 2.4 GHz unlicensed spectrum, DIALOG 20 has several advantages over fixed-frequency transmission. DIALOG 20 incorporates flexible features and multiple options usually available only in much larger systems. While DIALOG 20 works seamlessly with all commercially available mixers, it boasts additional features when natively interfacing with our CONVERGE Pro 2 or Beamforming Microphone Arrays.

In January 2022 we introduced DIALOG® 10 USB, the industry's only single-channel wireless microphone system offering professional-quality audio with USB connectivity. Offering plug-and-play simplicity and wireless convenience, DIALOG 10 USB is an ideal solution for webcasting and cloud-based collaboration. Setup is a breeze with the included USB Type C cable that connects to any PC for audio, power, and control. With no external power source or additional audio cables required, DIALOG 10 USB is one of the easiest and fastest ways to enjoy high-quality audio in any application.

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VIDEO

Our video products include video collaboration and AV networking products. Our video products contributed 14% and 22% of our consolidated revenue in 2022 and 2021, respectively.

Video Collaboration:

Our Media Collaboration suite of products is led by our comprehensive portfolio of industry-leading COLLABORATE® branded videoconferencing and collaboration solutions.

COLLABORATE Live 300 includes SIP/H.323 video conferencing, wireless presentation and interactive whiteboard capabilities — along with one CHAT 150 speakerphone and one UNITE 150 PTZ camera with 1080p30, and 12x optical zoom.

COLLABORATE Live 600 is a video collaboration system that delivers crystal-clear, full-duplex audio for medium-sized conference room environments. It offers the same suite of built-in video conferencing capabilities, the UNITE 200 1080p60 PTZ camera with 12x optical zoom, and an ultra-friendly user interface that's as simple and familiar as the interface found on a tablet or mobile device. For audio, the system features twoClearOne CHAT®150 speakerphones that daisy chain with CHATAttach® for crystal-clear audio quality.

Rounding out ClearOne's COLLABORATE Live product line is COLLABORATE Live 200, a video collaboration system with ultra-wide angle video capture, which is critical for viewing all conference participants in huddle spaces and smaller room environments. Designed specifically to meet huddle space budgets, COLLABORATE Live 200 features the UNITE 50 EPTZ 1080p30 camera with 3x digital zoom and a 120-degree wide-angle field of view. Other features are similar to those found in the COLLABORATE Live 300 system, including the free 90-day COLLABORATE Space subscription.

Our Media Collaboration series also includes COLLABORATE Space, a suite of solutions that unifies messaging, calls, meetings and, perhaps most importantly, minds in a way that will energize workflows and increase productivity for everyone involved in the enterprise.Designed as a persistent, user-friendly collaboration suite, COLLABORATE Space contains many powerful UCC capabilities, as well as the seamless ability to make calls outside the network. By adding phone credits on the account, customers can reach anyone in the world on a standard landline or mobile phone with the system's integrated phone dialer.

With COLLABORATE Space, users can work together one-on-one, or in groups of hundreds, with integrated file sharing, searchable archives, and user presence information. They can connect with colleagues and contacts, via audio and video, with the most intuitive collaboration tools. Users can meet immediately or schedule a meeting and access a full suite of collaboration features, including file sharing, whiteboarding, annotation, chat, and meeting minutes. Team members wishing to move from email can also create searchable private and public channels, organized by topic, which can be accessed from anywhere. They can also search, access and store agendas, notes, messages, documents, whiteboards, session recordings, and more. Finally, COLLABORATE Space runs on any device, from desktop to mobile, and on any standards-based video endpoint.

COLLABORATE Space Enterprise has all the functionality people have come to expect from a full-featured cloud collaboration app, with the increased security and full, enterprise control associated with on-premises platforms. In addition to the "Enterprise" platform, COLLABORATE Space is available in cloud-based "Basic" and "Pro" versions.

COLLABORATE Space, our powerful cloud-based collaboration solution, added two valuable features in 2020 - webinar hosting and Web RTC. COLLABORATE Space Pro and Enterprise meeting plans can be upgraded to include the Webinar feature allowing session hosts to conduct video and audio presentations for up to 1000 participants. The Web RTC feature works with all popular browsers including Microsoft Edge, Google Chrome, Safari and Mozilla Firefox. The Web RTC feature enables users to easily join full-featured COLLABORATE Space audio and video meetings using a browser with no downloads or plug-ins required. Users can accept meeting, webinar, and classroom invitations and join with a single click; easily sharing and viewing content within a browser window. COLLABORATE Space also added a feature where Microsoft Teams users can now enjoy a richer collaboration than that available within the Teams environment today. This richer collaboration experience includes better video quality, support for multiple cameras, support for multiple displays, and a persistent meeting space where chats, audio and video recordings, documents, meeting minutes, whiteboard sessions, and more can be shared in private or public channels for later access. Users can easily initiate a Space video meeting or join an existing Space video meeting within the MS Teams environment.

ITEM 1 - BUSINESS

Bring your own device and web conferencing

The COLLABORATE Versa series offer a USB PTZ camera, a speakerphone and USB hub that connects a laptop to the meeting room peripherals via a single USB 3.0 cable. COLLABORATE Versa, is compatible with Microsoft Teams, Zoom, WebEx, Google Meet, and more. This solution is targeted at huddle spaces and medium conference rooms.

COLLABORATE Versa 50 features a ClearOne UNITE® 50 EPTZ 3x zoom 1080p30 camera to capture all participants in the room; a USB hub for connecting to dual displays, cameras, audio endpoints, networks and other peripherals, and a CHAT® 150 speakerphone with advanced audio processing for a rich conferencing experience.

The COLLABORATE Versa Pro 50 addresses today's AV collaboration needs for COLLABORATE Space, MS Teams, Zoom, WebEx, GoToMeeting and other applications with a complete huddle space solution. It features a CONVERGE® Huddle audio DSP mixer for a professional audio experience, a ClearOne UNITE® 50 EPTZ 3x zoom 1080p30 camera, and a ceiling microphone array with 360-degree coverage reducing reverberation and noise. Customers purchasing the COLLABORATE Versa Pro 150 get upgraded to a 1080p30 UNITE® 150 PTZ camera with 12x optical zoom.

COLLABORATE Versa Pro CT, includes a Huddle DSP mixer and the Huddle-compatible and patented BMA CTH that is a perfect fit for small-to medium-sized rooms.The COLLABORATE Versa Pro CT is a great room solution for Bring Your Own Device (BYOD) collaboration using any cloud-based service. such as Microsoft Teams, WebEx, Zoom, and more.The system includes the Company's new BMA CTH Beamforming Microphone Array Ceiling Tile with built-in AEC, providing the same impeccable room coverage as the BMA CT using adaptive steering (think of it as smart switching).The COLLABORATE Versa Pro CT system also includes mic/line inputs with AEC, line outputs, 4x10 Watt power amps, USB audio, and HDMI. The system comes preloaded with a project file ready for the most common room configuration. Or it can be further configured using CONSOLE® AI software, now with enhanced visualization and Audio Intelligence.

Additionally, both COLLABORATE Versa Pro 50 and Versa Pro 150 solutions feature a CONVERGE® Huddle audio DSP mixer for a professional audio experience, and a Ceiling Microphone Array with 360-degree coverage that reduces reverberation and noise.

Cameras

UNITE 200/150 is a professional-grade PTZ camera series supporting USB, HDMI and IP connectivity. It delivers 1080p HD resolution, 12X optical zoom and is compatible with PC-based and Pro-AV applications, supporting wide range of meeting spaces.

The UNITE 50 4K camera is plug-and-play ready with a 120-degree field-of-view, and digital zoom. It pairs easily with any microphone/speaker combination. The UNITE 50 4K camera's ultra-wide-angle field-of-view is ideally suited for PC-based video conferencing, web conferencing and unified communications, and other collaboration experiences in huddle spaces and small conference rooms. The camera also supports the USB Video Class (UVC) 1.1 standard for maximum compatibility with a wide variety of cloud and room-based solutions. Along with 4K30 resolution, the autofocus camera features 3x digital zoom and a full-function USB 3.0 interface for video and power. Its wide dynamic range provides support for optimal image capture — critical for all video conferencing.

In April 2020, we introduced the UNITE 20 Pro Webcam, which easily mounts on a PC or laptop to provide full 1080p30 image with an ultra wide-angle field-of-view up to 120°. A super-high signal-to-noise ratio and advanced 2D and 3D noise reduction provides superior desktop camera video quality.

During the first quarter of 2021, we announced two powerful cameras that enhance the ease and visual quality of online collaboration beyond the capabilities of integrated laptop and PC cameras. With the ClearOne UNITE® 10, the Company's most affordable camera ever, and the feature-rich ClearOne UNITE 50 4K AF that includes Auto-Framing technology for automatic single- or multi-person capture, everyone can communicate with the confidence provided by stunning video that puts them in the best possible light. The small, powerful webcam supports up to 1080p video quality and offers autofocus. The UNITE 10 can capture five-megapixel images with a field of view up to 87 degrees. The UNITE 10 attaches to any PC or laptop with a simple mounting bracket, and a 1.5m USB-A cable ensures simple connection to most modern computers.

ITEM 1 - BUSINESS

The new UNITE 50 4K AF camera is a major upgrade over traditional webcams and introduces ClearOne's new Auto-Framing technology that automatically frames meeting participants to maximize screen use through intelligent image algorithms and ePTZ automation (electronic pan, tilt and zoom). With 4K video quality at 30 Hz, auto-focus capability, 4x digital zoom, more than 8 megapixels of total resolution and an ultra-wide 110-degree field of view, the UNITE 50 4K AF ePTZ is equally capable of delivering incredible image quality from a home office as it is at capturing all participants in an office boardroom. The camera can be controlled through an IR remote, further simplifying use and enabling real-time control of pan, tilt and zoom to provide greater control when capturing multi-person meeting environments. A standard damping mount ensures fast, easy installation, while an included USB 3.0 cable provides both power and video. Both new ClearOne cameras enable life-like video quality to web-based conferencing applications including Microsoft Teams, WebEx, Google Meet, Zoom, and GoToMeeting.

During July 2021 we introduced the UNITE 180 ePTZ professional camera that provides a full 180-degree panoramic field-of-view with "real-time stitching" to achieve a variety of useful viewing modes for any application and environment. Designed for professional-quality visual collaboration, conferencing, UC applications, distance learning, and more, the new UNITE 180 camera provides six viewing mode options as well as panoramic view for the ultimate in camera flexibility. Real-time stitching creates a seamless 180-degree panoramic view of wide spaces by bringing the views of multiple lenses together as one complete image. Large classroom settings, training centers, or any wide conferencing area are all captured and presented with perfect clarity in any of the viewing mode options. A 4x zoom further enhances the UNITE 180 feature set. The UNITE 180 is compatible with all popular cloud-based video collaboration applications including Microsoft Teams, Zoom, WebEx, Google Meet, and others.

During July 2021 we also announced the market introduction of the Versa Mediabar™ video soundbar, the Company's first professional quality all-in-one audio and video capture device that combines the elegance and simplicity of a soundbar with the power of ClearOne's intelligent audio capture and 4K camera technologies. Versa Mediabar provides high-quality visual collaboration, audio conferencing, and UC applications from a single integrated device, offering the simplest solution available for offices, conference rooms and home offices with virtually no setup required. With a compact design that can be mounted on a wall or attached to a video display, the Versa Mediabar connects via a single USB cable to elevate the soundbar concept into a powerful tool for virtual collaboration that includes AI-enabled auto-framing and people tracking. The Versa Mediabar features a built-in 4K Ultra HD camera with a 110-degree ultra wide-angle field of view and a four-element microphone array with 360-degree voice pickup and intelligent DSP that provides acoustic echo cancellation (AEC) and automatic noise reduction to ensure crystal clear audio capture. The camera combines electronic pan, tilt and zoom functions (ePTZ) with artificial intelligence to enable auto-framing and people tracking that keeps the speaker in view even if they move around the room. From huddle spaces and small meeting rooms to executive offices and home offices, the compact Versa Mediabar delivers all the power and clarity needed for daily virtual communications. In addition to its professional-quality audio and video capture, the Versa Mediabar also features a powerful built-in speaker with Bluetooth connectivity that allows it to serve double duty as a fully-featured conferencing solution or a Bluetooth speaker for impromptu calls using any Bluetooth device. These attributes make the Versa Mediabar perfect for popular cloud-based collaboration applications such as Microsoft Teams, Zoom, WebEx, and Google Meet. The Versa Mediabar supports standard UVC commands for control, making it a great addition to existing systems, while dual wall and display mounting options deliver freedom of placement and movement.

At the end of October 2022, we announced the introduction of the UNITE® 60 camera, a new wide angle 4K USB camera featuring AI-powered smart face and voice tracking, along with electronic PTZ (pan/tilt/zoom) capabilities. With a 120-degree field of view, and a plug-and-play USB 3.0 connection for video, control, and power, the new UNITE 60 camera is ideally suited for rooms such as executive offices, huddle rooms, or smaller conference rooms. The UNITE 60 camera leverages a wide dynamic range and super-high SNR with advanced 2D and 3D noise reduction to deliver excellent visuals across varied lighting conditions. In addition to the AI auto-tracking feature, the camera can also be controlled via IR remote or UVC protocol. The camera can be paired with a wide variety of microphones and speakers.

In November 2022, we announced the introduction of UNITE 160, a new camera that offers cutting-edge 4K UHD performance with 12x optical zoom capabilities, remote-controlled mechanical pan and tilt as well as AI-powered smart face tracking and auto framing. This camera is designed to capture all participants in large rooms while enabling automated focus on a moving presenter, making it ideal for larger spaces including board rooms, training centers, conference rooms and classrooms. This new camera offers an integrated AI-based camera tracking solution for rooms that are a fit for ClearOne's Versa Lite CT and a single camera. This new lower-cost camera tracking configuration eliminates the need for a DSP mixer and a control system.

ITEM 1 - BUSINESS

AV Networking

Our AV networking products are primarily sold under VIEW® Pro and VIEW Lite brands and deliver the ultimate IP A/V experience by streaming time sensitive high definition audio and video and control over TCP/IP networks. By combining audio and/or video content, meta-data and control signals into one digital stream in harmony with industry standards, its distributed, edge of the network architecture allows the hardware and the processing power to be distributed across any existing TCP/IP network. This leverages many of the advantages of using TCP/IP over traditional analog systems and other centrally controlled IP-based systems. VIEW Pro products are powered by ClearOne's patented StreamNet® technology. A user can activate and control a single audio source or combination of audio sources, video sources, security systems, HVAC systems, lighting, and other room or facility monitoring functions such as paging or security access by just a single touch to its attractive touch screens. Alternatively, any PC, laptop, tablet, or other device with a built-in web browser can control the equipment connected to the system. VIEW Pro systems have no limits on the numbers of sources, displays, or amplifiers in a project and can be used in venues from high-end residential homes to large-scale commercial projects. The number of devices could be determined by the network bandwidth availability, number of media streams and its bandwidth requirements.

Transporting an audio or video signal via IP (Internet Protocol) packets preserves the digital quality of the signal across the network. Unlike analog systems, which lose quality over long distances, IP packets are decoded to retain the same digital quality as when they were encoded. The addition of Digital Encoder and Digital Decoder products with DVI/HDMI input and output enhances the flexibility of the complete AV distribution system and makes it as easy to use as analog devices.

The VIEW Pro solution provides 1080p60, H.264 high definition HDMI video-audio, 4:4:4 true-color, 24 bit per pixel video output. It comes with a dual input encoder, single input encoder and single output decoder with balanced audio, general purpose control ports and clock synchronized video output. The VIEW Pro system also provides PANORAMA™, a multi-view video composition and video-wall software application using its built-in video processing engine, without using external expensive hardware video processors. This continues to be truly differentiated in the professional market by offering complete AV streaming and distribution systems that can scale to fulfill projects of any size and complexity, from light commercial to the very largest environments. VIEW Pro products include E110 and E120 encoders and D110, D210 and D310 decoders. The VIEW Pro solution also comes with multiple features including audio mixing, video composition, video wall, multicast RTSP and local playback.

VIEW CONSOLE software gives integrators a comprehensive platform from which to configure, manage, monitor, and control VIEW Pro system installation using an easy, modern interface. The toolset, which incorporates advanced software technologies, works across ClearOne's full line of VIEW Pro products.

The VIEW Lite series includes an encoder, a decoder and a controller, that provide essential functionality that meets the full needs of simple AV over IP applications while simultaneously delivering superb price-to-performance value.

PROFESSIONAL AUDIO AND VIDEO HOME OFFICE SOLUTIONS

During November 2020, we introduced Aura™, a comprehensive range of Good, Better and Best packages of enterprise quality audio, video, audio-video options to meet the home office market demand for professional audio and video collaboration solutions that match the quality found in a traditional corporate office.

The COVID 19 pandemic brought long lasting changes to the workplace. Home has become the new office for tens of millions of professionals who now need a work environment every bit as productive as their corporate office. Aura was developed to deliver that much-needed enterprise quality experience in the home. For homeowners, prospective homebuyers, builders, architects and designers, the purpose-built home office is rapidly replacing the home theater in importance. Aura solutions are designed for high performance professionals across multiple industries. Aura meets this growing need for easy to purchase and install commercial quality solutions that deliver HDConference® audio and true-to-life video technology through a variety of professional microphone, audioconferencing, videoconferencing, camera and collaboration component choices that optimize home office acoustic and aesthetic aspirations. Aura solutions are designed to be easily installed by both homeowners and installers.

With the post-pandemic demand for work from home and learn from home markets plateauing, we have decided to deemphasize the Aura product line and continue our focus on our core product lines and our key channels including the professional audiovisual channel.

ITEM 1 - BUSINESS

MARKETING AND SALES

We use a two-tier channel model through which we sell our commercial products to a worldwide network of independent professional audiovisual, information technology and telecommunications distributors, who then sell our products to independent systems integrators, dealers, and value-added resellers, who in turn work directly with the end-users of our products for product fulfillment and installation, if needed. Our products are also specified and recommended by professional audio-visual consultants. We also sell our commercial products directly to certain dealers, systems integrators, value-added resellers, and end-users.

Our product sales generated in the United States and outside the United States for the years ended December 31 are as follows:

Revenue in millions	2022		2021	
	Revenue	%	Revenue	%
In the United States	$ 12.1	48%	$ 14.2	49%
Outside United States	13.1	52%	14.8	51%
	$ 25.2	100%	$ 29.0	100%

We sell directly to our distributors and resellers in approximately 55 countries worldwide. We anticipate that the portion of our total product revenue from international sales will continue to be a significant portion of our total revenue as we further enhance our focus on developing new products, establishing new channel partners, strengthening our presence in key growth areas, complying with regional environmental regulatory standards, and improving product localization with country-specific product documentation and marketing materials.

Distributors, Resellers and Independent Integrators

We sold our products directly to approximately 300 distributors and direct resellers throughout the world during 2022. Distributors and resellers purchase our products at a discount from list price and resell them worldwide to hundreds of independent systems integrators, telephony value-added resellers, IT value-added resellers, and PC dealers on a non-exclusive basis. Our distributors maintain their own inventory and accounts receivable and are required to provide technical and non-technical support for our products to the next level of distribution participants. We work with our distributors and resellers to establish appropriate inventory stocking levels. We also work with our distributors and resellers to maintain relationships with our existing systems integrators, dealers, and other value-added resellers.

While dealers, resellers, and system integrators all sell our products directly to end-users, system integrators typically add significant value to each sale by combining our products with products from other manufacturers as part of an integrated system solution. Commercial dealers and value-added resellers usually purchase our products from distributors and may bundle our products with products from other manufacturers for resale to the end-user. We maintain close working relationships with all our reseller partners and offer them education and training on all of our products.

Marketing

Much of our marketing effort is conducted in conjunction with our channel partners who provide leverage for us in reaching existing and prospective customers worldwide. We also regularly attend industry forums and exhibit our products at multiple regional and international trade shows, often with our channel partners. These trade shows provide exposure for our brand and products to a wide audience. We market our ClearOne-branded commercial products on our website www.clearone.com. We also conduct public relations initiatives to get press coverage and product reviews in industry and non-industry publications alike.

Customers

Since we sell through distributors and value-added resellers, we do not have comprehensive information on end-users who ultimately use our products. As a result, we do not know whether any end-user accounted for more than 10% of our total revenue during any of the periods reported in this Annual Report. Our customers are distributors and value-added resellers. During the years ended December 31, 2022 and 2021 no distributor accounted for more than 10% of our total consolidated revenue.

As discussed above, distributors facilitate product sales to a large number of independent systems integrators, dealers, and value-added resellers, and subsequently to their end-users. The loss of one or more distributors could reduce revenue and have a material adverse effect on our business and results of operations. Our orders fulfilled on which we had not recognized revenue were $63 thousand and $54 thousand as of December 31, 2022 and 2021, respectively. We had a backlog of unfulfilled orders of approximately $2.9 million and $1.4 million as of December 31, 2022 and 2021, respectively.

Competition

The audio-visual product markets are characterized by intense competition, rapidly evolving technology, and increased business consolidation. We compete with businesses having substantially greater financial, research and product development, manufacturing, marketing, and other resources. If we are not able to continually design, manufacture, and successfully market new or enhanced products or services that are comparable or superior to those provided by our competitors and at comparable or better prices, we could experience pricing pressures and reduced sales, gross profit margins, profits, and market share, each of which could have a materially adverse effect on our business. Our competitors vary within each product category. We believe we are able to differentiate ourselves and therefore successfully compete as a result of the high audio quality of our products resulting from a combination of proprietary and highly advanced audio signal processing technologies and networking technology in the form of trade secrets and patented intellectual property, technical and channel support services, and the strength of our channels and brands. It is critical for our success to be able to defend our intellectual property including trademarks, trade secrets and patents from our competitors who have far more resources.

We believe the following principal factors drive our sales:

- Quality, features and functionality, and ease of use of the products.
- Broad and deep global channel partnerships.
- Brand name recognition and acceptance.
- Effective sales and marketing.
- Quality of sales and technical support services.
- Significant established history of successful worldwide installations for diverse vertical markets.

In the professional audio conferencing system and sound reinforcement markets our main competitors include AcousticMagic, Biamp, BOSE, Crestron, Extron, Harman (Samsung), Peavey, Poly, QSC, Shure, Symetrix, Vaddio, Xilica, and Yamaha and any original equipment manufacturing (OEM) partners, along with several other companies potentially poised to enter the market.

Our primary competitors in the USB-based speakerphones market are Jabra, Logitech, Poly, Sennheiser, Yamaha and Yealink and any OEM partners.

In the tabletop conference phones, we face significant competition from Avaya/Konftel, Poly, Yamaha and Yealink, and from any OEM partnerships. A significant portion of the tabletop market is covered by sales through OEM partnerships.

In the microphones market, our primary competitors include AKG, Audio Technica, Audix, Avlex/Mipro, Beyerdynamic, Biamp, Clock Audio, Lectrosonics, Nureva, Mediavision/Taiden, Poly, Phoenix Audio, Sennheiser, Shure, TeachLogic, TOA, Yamaha and Vaddio and any OEM partners.

Our video conferencing products face tremendous competition from well established players as well as emerging players, including Acano/CISCO, Adobe Connect, Amazon Chime, Avaya (Radvision), Aver, Barco, Blackboard Collaborate, Blue Jeans, Cisco, Citrix, Fuze, Huawei, InFocus, Kramer, LifeSize, Magor, Pexip, Poly, Microsoft, Starleaf, UNIFY, Videxio, Vidyo, Yealink, Zoom and ZTE.

Our AV networking products face intense competition from a few well-established corporations of diversified capabilities and strengths, including Atlona, Aurora Multimedia, Barco, Biamp, Crestron, Extron, Gefen, Haivision, Hall Research, Harman, Infocus (Jupiter), Key Digital, Kramer, Liberty AV, Magenta Research, Matrox, Mediasite, Ncast, RGB Spectrum, voLANte, Teracue, tvONE, VBrick, Visionary Solutions, WyreStorm and ZeeVee. We believe that our software based patented technology delivers superior audio and video streaming performance and flexibility and provides us with a competitive edge over other industry players.

ITEM 1 - BUSINESS

Sources and Availability of Raw Materials

We manufacture our products through electronics manufacturing services (“EMS”) providers, who are generally responsible for sourcing and procuring required raw materials and components. Most of the components that our EMS providers require for manufacturing our products are readily available from a number of sources. During 2020 and after, we witnessed a significant tightening of the electronics market with demand for electronic products especially for semiconductors which include memories and processors, far exceeding the supply along with surging inflation that caused price increases and longer fulfillment cycles. COVID-19 completely disrupted the entire supply chain and extended the already lengthy fulfillment cycles. Continued tariff wars between USA and China created more uncertainty with respect to pricing and consequently affected the supply chain.

Extended lead times for component purchases and component cost increases persisted throughout 2021. Lead times shortened for many components in 2022, and although component costs moderated somewhat in 2022 compared to 2021, several component suppliers have made cost increases permanent.

We continually work with our EMS providers to seek alternative sources for all our components and raw material requirements to ensure higher quality and better pricing. Most of our EMS providers and their vendors are duly qualified by our corporate quality assurance process. We work with our EMS providers to ensure that raw materials and components conform to our specifications.

Manufacturing

Currently, all of our products are manufactured by EMS providers. Our primary EMS provider is Flextronics.

Seasonality

We do not recognize a consistent pattern between the quarters to identify seasonality.

Research and Product Development

We are committed to research and product development and view our continued investment in research and product development as a key ingredient to our long-term business success. Our research and product development expenditures were approximately $4.4 million and $5.8 million during the years ended December 31, 2022 and 2021, respectively.

Our core competencies in research and product development include (a) many audio technologies, including acoustic echo cancellation, noise cancellation and other advanced adaptive digital signal processing technologies, (b) networking and multimedia streaming technologies, (c) video technologies, and (d) cloud technologies. We also have expertise in wireless technologies, VoIP, software and network system development. We believe that continued investment in our core technological competencies is vital to developing new products and to enhancing existing products.

Intellectual Property and Other Proprietary Rights

We believe that our success depends in part on our ability to protect our proprietary rights. We rely on a combination of patent, copyright, trademark, and trade secret laws and confidentiality agreements and processes to protect our proprietary rights.

As of December 31, 2022, we had approximately 79 patents and 4 pending patent applications, including foreign counterpart patents and foreign applications. Our patents and pending patent applications cover a wide range of our products and services including, but not limited to acoustic echo cancellation, beamforming microphone arrays, systems that enable streaming media over IP networks, algorithms for video processing, wireless conferencing systems, spatial audio, and technologies for the Internet of Things. The durations of our patents are determined by the laws of the country of issuance. For the U.S., patents may be 17 years from the date of issuance of the patent or 20 years from the date of its filing, depending upon when the patent application was filed. In addition, we hold numerous U.S. trademarks. The laws of foreign countries may not protect our intellectual property to the same degree as the laws of the United States.

We will obtain patents and other intellectual property rights used in connection with our business when practicable and appropriate. Our intellectual property policy is to protect our products, technology and processes by asserting our intellectual property rights where appropriate and prudent. From time to time, assertions of infringement of certain patents or other intellectual property rights of others have been made against us. In addition, the Company was involved in patent infringement lawsuits against Shure Inc. ("Shure"). See Note 8 – Commitments and Contingencies – Legal Proceedings – Intellectual Property Litigation for a discussion of these legal proceedings.

We are dependent on our intellectual property. If we are not able to protect our proprietary rights or if those rights are invalidated or circumvented, our business may be adversely affected. We may be subject to litigation and infringement claims, which could cause us to incur significant expenses or prevent us from selling our products or services. For more information concerning the risks related to patents, trademarks, and other intellectual property, please see "Risk Factors-Risks Related to our Business."

We generally require our employees, certain customers and partners to enter into confidentiality and non-disclosure agreements before we disclose any confidential aspect of our technology, services, or business. In addition, our employees are required to assign to us any proprietary information, inventions, or other technology created during the term of their employment with us. However, these precautions may not be sufficient to protect us from misappropriation or infringement of our intellectual property.

Employees

As of December 31, 2022, we had 82 full-time employees. Of these employees, 44 were located in the U.S. and 38 in locations outside the U.S. None of our employees are subject to a collective bargaining agreement and we believe our relationship with our employees is good. We also hire contractors with specific skill sets to meet our operational needs.

ITEM 1A. RISK FACTORS

Investors should carefully consider the risks described below. The risks described below are not the only ones we face and there are risks that we are not presently aware of or that we currently believe are immaterial that may also impair our business operations. Any of these risks could harm our business. The trading price of our common stock could decline significantly due to any of these risks, and investors may lose all or part of their investment. In assessing these risks, investors should also refer to the other information contained or incorporated by reference in this annual report on Form 10-K, including our consolidated financial statements and related notes.

Risks Relating to Our Business

We face intense competition in all markets for our products and services and our operating results will be adversely affected if we cannot compete effectively against other companies.

The markets for our products and services are characterized by intense competition, pricing pressures and rapid technological change. Our competitive landscape continues to rapidly evolve, in particular with respect to our video-related services and products, as we move into new markets for video collaboration such as mobile, social and cloud-delivered video. We compete with businesses having substantially greater financial, research and product development, manufacturing, marketing, and other resources than we do. In addition, many of our current competitors, as well as many of our potential competitors, are private companies not subject to the costs and disclosure requirements applicable to us as a public company, have longer operating histories, significantly greater resources to invest in new technologies and more substantial experience in new product development, regulatory expertise, manufacturing capabilities and the distribution channels to deliver products to customers. If we are not able to continually design, manufacture, and successfully introduce new or enhanced products or services that are comparable or superior to those provided by our competitors and at comparable or better prices, we could experience pricing pressures and reduced sales, gross profit margins, profits, and market share, each of which could have a materially adverse effect on our business.

Difficulties in estimating customer demand in our products segment could harm our profit margins.

Orders from our distributors and other distribution participants are based on demand from end-users. Prospective end-user demand is difficult to measure. This means that our revenue during any fiscal quarter could be adversely impacted by low end-user demand, which could in turn negatively affect orders we receive from distributors and dealers. Our expectations for both short and long-term future net revenues are based on our own estimates of future demand. Revenue for any particular time period is difficult to predict with any degree of certainty. We typically ship products within a short time after we receive an order; consequently, unshipped backlog has not historically been a good indicator of future revenue. We believe that the level of backlog is dependent in part on our ability to forecast revenue mix and plan our manufacturing accordingly. A significant portion of our customers' orders are received during the last month of the quarter. We budget the amount of our expenses based on our revenue estimates. If our estimates of sales are not accurate and we experience unforeseen variability in our revenue and operating results, we may be unable to adjust our expense levels accordingly and our gross profit and results of operations will be adversely affected. Higher inventory levels or stock shortages may also result from difficulties in estimating customer demand.

If we are unable to protect our intellectual property rights or have insufficient proprietary rights, our business would be materially impaired.

We currently rely primarily on a combination of trade secrets, copyrights, trademarks, patents, patents pending, and nondisclosure agreements to establish and protect our proprietary rights in our products. Our success is dependent in part on obtaining, maintaining and enforcing our intellectual property rights. If we are unable to obtain, maintain and enforce intellectual property legal protection covering our products, then no assurances can be given that others will not independently develop technologies similar to ours, or duplicate or design around aspects of our technology. In addition, we cannot assure that any patent or registered trademark owned by us will not be invalidated, circumvented or challenged, or that the rights granted thereunder will provide competitive advantages to us. Costly litigation may be necessary to enforce our intellectual property rights. We believe our products and other proprietary rights do not infringe upon any proprietary rights of third parties; however, we cannot ensure that third parties will not assert infringement claims in the future. We currently hold only a limited number of patents. To the extent that we have patentable technology that is material to our business and for which we have not filed patent applications, others may be able to use such technology or even gain priority over us by patenting such technology themselves, which could have a material adverse effect on our business. With respect to any patent application we have filed, we cannot ensure that a patent will be awarded.

ITEM 1A - RISK FACTORS

We may be subject to patent litigation, including claims challenging the validity and enforceability of some of our patents, which could cause us to incur significant expenses or prevent us from protecting our products or services against competing products.

Our industry is characterized by vigorous protection of intellectual property rights. We previously were involved in litigation to enforce our intellectual property rights and we may be involved in litigation in the future, which has resulted and could result in our adversaries in such litigation challenging the validity, scope, and/or enforceability of our intellectual property. Irrespective of the merits of these claims, any resulting litigation could be costly and time consuming and could divert the attention of management and key personnel from other business issues. The complexity of the technology involved, and the uncertainty of intellectual property litigation increase these risks. See Part I, Item 3. Legal Proceedings and Note 8 – Commitments and Contingencies of the Notes to Consolidated Financial Statements (Part II, Item 8) for information regarding current legal proceedings involving our intellectual property rights.

Our sales depend to a certain extent on government funding and regulation.

In the audio conferencing products market, the revenue generated from sales of our audio conferencing products for distance learning and courtroom facilities depends on government funding. In the event government funding for such initiatives was reduced or became unavailable, our sales could be negatively impacted. Additionally, many of our products are subject to governmental regulations. New regulations could impact sales in a materially adverse manner.

Environmental laws and regulations subject us to a number of risks and could result in significant costs and impact on revenue.

Regulations regarding the materials used in manufacturing, the process of disposing of electronic equipment and the efficient use of energy require us to take additional time to obtain regulatory approvals of new products in international markets. Such regulations may impact our ability to expand our sales in a timely and cost-effective manner and, as a result, our business could be harmed.

A material weakness was identified in our internal control over financial reporting. If we fail to maintain effective internal control over financial reporting in the future, we may be unable to report our financial results accurately on a timely basis, investors could lose confidence in our reported financial information, the trading price of our common shares could decline and our access to the capital markets or other financing sources could become limited.

In connection with the audit of our consolidated financial statements as of December 31, 2017, our independent registered public accounting firm identified deficiencies in our system of internal control over financial reporting that it considered to be a material weakness related to the accurate and timely reporting of our financial results and disclosures for the fiscal year ended December 31, 2017 and our testing and assessment of the design and operating effectiveness of internal controls over financial reporting in a timely manner. The Public Company Accounting Oversight Board's Auditing Standard No. 5 defines a material weakness as a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of annual or interim financial statements will not be prevented or detected on a timely basis. See Part II, Item 9A, "Controls and Procedures."

We initiated remedial measures and conducted an evaluation of the effectiveness of our internal control over financial reporting for the years 2019, 2020, 2021 and 2022 based on the framework set forth in *Internal Control - Integrated Framework* (2013 framework) issued by the Committee of Sponsoring Organizations of the Treadway Commission, and concluded that remediation of the material weakness identified during the 2017 audit has been completed. We also concluded under this evaluation that our internal control over financial reporting was effective as of December 31, 2021 and December 31, 2022, respectively.

However, there can be no assurance that these actions, as well as further actions we may take, will allow us to prevent any material weakness in the future and provide a solid foundation to meet our reporting obligations under the Exchange Act. If we fail to implement and maintain effective internal control over financial reporting, or if additional material weaknesses or any significant deficiencies in our internal control over financial reporting are discovered or occur in the future, our consolidated financial statements may contain material misstatements, and we could be required to restate our financial results. In addition, if we are unable to successfully remediate future material weakness and if we are unable to produce accurate and timely financial statements, our stock price may be materially adversely affected and we may be unable to maintain compliance with applicable stock exchange listing requirements.

ITEM 1A - RISK FACTORS

We have identified two significant deficiencies in internal control over financial reporting, and if we fail to maintain effective internal controls over financial reporting, the price of our common stock may be adversely affected.

We are required to establish and maintain appropriate internal controls over financial reporting. Failure to establish those controls, or any failure of those controls once established, could adversely impact our public disclosures regarding our business, financial condition or results of operations. Any failure of these controls could also prevent us from maintaining accurate accounting records and discovering accounting errors and financial fraud.

In the course of completing its assessment of internal control over financial reporting as of December 31, 2021, management did not identify any material weaknesses but did identify the continued existence of two significant deficiencies in the lack of end user segregation in our accounting system and a failure to perform user access audits for certain system applications. Specifically, management believes that we may not be able to adequately segregate responsibility over financial transaction processing and reporting. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control over financial reporting, that is less severe than a material weakness yet important enough to merit attention by those responsible for oversight of the Company's financial reporting. Although we are unable to remediate the end user segregation significant deficiency with current personnel, we are mitigating its potential impact, primarily through a review of all employee's access rights in our accounting system.

In addition, management's assessment of internal controls over financial reporting may identify additional weaknesses and conditions that need to be addressed or other potential matters that may raise concerns for investors. Any actual or perceived weaknesses and conditions that need to be addressed in our internal control over financial reporting or disclosure of management's assessment of our internal controls over financial reporting may have an adverse impact on the price of our common stock.

Our profitability may be adversely affected by our continuing dependence on our distribution channels.

We market our products primarily through a network of distributors who in turn sell our products to value-added resellers. All of our agreements with such distributors and other distribution participants are non-exclusive, terminable at will by both parties, and generally short-term. No assurances can be given that any or all such distributors or other distribution participants will continue their relationship with us. Distributors and, to a lesser extent, value-added resellers cannot easily be replaced and any loss of revenues from these and other sources or our inability to reduce expenses to compensate for such loss of revenue could adversely affect our net revenue and profit margins.

Although we rely on our distribution channels to sell our products, our distributors and other distribution participants are not obligated to devote any specified amount of time, resources, or efforts to the marketing of our products, or to sell a specified number of our products. There are no prohibitions on distributors or other resellers offering products that are competitive with our products, and some do offer competitive products. The support of our products by distributors and other distribution participants may depend on the competitive strength of our products and the price incentives we offer for their support. If our distributors and other distribution participants are not committed to our products, our revenue and profit margins may be adversely affected.

Additionally, we offer our distributors price protection on their inventory of our products. If we reduce the list price of our products, we will compensate our distributors for the respective products that remain in their inventory on the date the price adjustment becomes effective, provided that they have been providing inventory reports consistently and the inventory was bought within the six months preceding the price adjustment date. Our net revenue and profit margins could be adversely affected if we reduce product prices significantly or distributors happen to have significant on-hand inventory of the affected product at the time of a price reduction. Further, if we do not have sufficient cash resources to compensate distributors on terms satisfactory to them or us, our price protection obligations may prevent us from reacting quickly to changing market conditions.

We are substantially dependent on our sales force to effectively execute our sales, pricing and business strategies.

We believe that there is significant competition for skilled sales personnel with technical knowledge. Our ability to grow our business depends on our success in recruiting, training, and retaining sales personnel to support our sales. We periodically adjust our sales organization and our compensation programs to optimize our sales operations, to increase revenue, and to support our business model. If we have not structured our sales organization or compensation for our sales personnel in a way that properly supports our business objectives, or if we fail to make changes in a timely fashion or do not effectively manage changes, our performance and results of operations could be adversely affected.

ITEM 1A - RISK FACTORS

Product development delays or defects could harm our competitive position and reduce our revenue.

We have in the past experienced, and may again experience, technical difficulties and delays with the development and introduction of new products. Many of the products we develop contain sophisticated and complicated circuitry, software and components and utilize manufacturing techniques involving new technologies. Potential difficulties in the development process that we may experience include the following: (a) meeting required specifications and regulatory standards; (b) hiring and keeping a sufficient number of skilled developers; (c) meeting market expectations for performance; (d) obtaining prototype products at anticipated cost levels; (e) having the ability to identify problems or product defects in the development cycle; and (f) achieving necessary manufacturing efficiencies.

The success of our new product introductions depends on a number of factors, including proper new product definition, product cost, infrastructure for services and cloud delivery, timely completion and introduction of new products, proper positioning and pricing of new products in relation to our total product portfolio and their relative pricing, differentiation of new products from those of our competitors and other products in our own portfolio, market acceptance of these products and the ability to sell our products. Once new products reach the market, they may have defects, or may be met by unanticipated new competitive products, which could adversely affect market acceptance of these products and our reputation. Other factors that may affect our success include properly addressing the complexities associated with compatibility issues, channel partner and sales strategies, sales force integration and training, technical and sales support, and field support. As a result, it is possible that investments that we are making in developing new products and technologies may not yield the planned financial results. If we are not able to manage and minimize such potential difficulties, our business and results of operations could be negatively affected.

We depend on an outsourced manufacturing strategy, and we may face increased risks and costs associated with volatility in commodity and labor prices or as a result of supply chain or procurement disruptions, which could negatively impact our product availability and revenues.

We outsource the manufacturing of all of our products to electronics manufacturing services (“EMS”) providers located outside the U.S. If any of these EMS providers experience (i) difficulties in obtaining sufficient supplies of components, (ii) difficulties in obtaining adequate skilled labor, (iii) component prices significantly exceeding anticipated costs, (iv) an interruption in their operations, or (v) otherwise suffers capacity constraints, we could experience a delay in production and shipping of these products, which would have a negative impact on our revenue. Should there be any disruption in services due to natural disaster, economic or political difficulties, transportation restrictions, acts of terror, quarantines or other restrictions associated with infectious diseases, or other similar events, or any other reason, such disruption could have a material adverse effect on our business. Operating in the international outsourcing environment exposes us to certain inherent risks, including unexpected changes in regulatory requirements and tariffs, and potentially adverse tax consequences, which could materially affect our results of operations. Currently, we have no second source of manufacturing for a large portion of our products.

Switching from one EMS provider to another or switching from one location of manufacturing to another location similar to our current transition from China to Singapore, is an expensive, difficult and a time-consuming process, with serious risks to our ability to successfully transfer our manufacturing operations. Our operations, and consequently our revenues and profitability, were impacted materially in 2021 and 2022 due to switching of manufacturing from one location to another and we expect this adverse condition to continue at least through the first half of 2023. Our operations, and consequently our revenues and profitability could be materially adversely affected in the future if we are forced to switch from any of our EMS providers to another EMS provider due to any of a number of factors, including financial difficulties faced by the manufacturer, disagreements in pricing negotiations between us and the manufacturer or organizational changes in the manufacturer. If our EMS providers experience disruptions in their operations, it is uncertain whether we would be able to source the essential commodities, supplies, materials, and skilled labor timely or at all without incurring significant costs or delays, particularly during times of economic uncertainty resulting from events outside of our control, including, but not limited to, effects of COVID-19. We may be forced to purchase supplies and materials in larger quantities or in advance of when we would typically purchase them. This may cause us to require use of capital sooner than anticipated. Alternatively, we may also be forced to seek new third-party suppliers or contractors, whom we have not worked with in the past, and it is uncertain whether these new suppliers will be able to adequately meet our materials or labor needs. In addition, we may be unable to compete with entities that may have more favorable relationships with their suppliers and contractors or greater access to the required raw materials and skilled labor.

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The cost of delivered product from our EMS providers is a direct function of their ability to buy components at a competitive price and to realize efficiencies and economies of scale within their overall business structures. During 2021 there was a worldwide shortage of semiconductor, memory and other electronic components affecting many industries, from automotive to technology providers. Even though this shortage has eased in 2022, the shortage continues to impact our operation. If the shortage continues or worsens it will impact our EMS providers significantly. If our EMS providers are unsuccessful in obtaining component parts at efficient costs or at all, our delivered costs could rise or we may not be able to fulfill orders on time or at all, affecting our gross margins, profitability and ability to compete. In addition, if the EMS providers are unable to achieve greater operational efficiencies, delivery schedules for new product development and current product delivery could be negatively impacted.

EMS providers often require long range forecasts to help them plan their operations as well as to allocate their resources. We are tied to these forecasts through contracts as well as to maintain harmony in business relationships. Our ability to react to actual demand from our customers and order optimum levels of inventory is severely limited due to these forecasts provided to the EMS providers. Our inability to accurately forecast our future demands could lead to either excess inventory causing potential inventory obsolescence and cashflow problems or shortage in inventory causing potential loss of revenue.

Additionally, the sourcing and availability of raw materials necessary for our EMS providers to manufacture certain of our products, including "conflict minerals" has been and could continue to be significantly constrained, which is likely to result in continued elevated price levels. Furthermore, compliance with SEC disclosure and reporting requirements in the future regarding the use of "conflict minerals" mined from the Democratic Republic of Congo and adjoining countries could adversely affect the sourcing, supply and pricing of materials used in our products. As a result, we may not be able to obtain the materials necessary to manufacture our products, which could force us to cease production or search for alternative supply sources, possibly at a higher cost. Such disruptions may have a material adverse effect on our business, financial condition, results of operations and cash flows.

COVID-19 has caused and may continue to cause unanticipated fluctuations in our gross margins, which can result in unanticipated fluctuations in our operating results.

Our gross margins can vary due to customer demand, competition, product pricing, product lifecycle, product mix, new product introductions, unit volumes, acquisitions and divestitures, commodity, supply chain and logistics costs, capacity utilization, geographic sales mix, currency exchange rates, trade policy and tariffs, and the complexity and functionality of new product innovations and other factors. If we are not able to introduce new products in a timely manner at the product cost we expect, or if customer demand for our products is less than we anticipate, or if there are product pricing, marketing and other initiatives by our competitors to which we need to react or that are initiated by us to drive sales that lower our margins, then our overall gross margin will be less than we project.

Moreover, growth in the hybrid work environment is likely to create greater pressures on us and our suppliers to accurately project overall and specific product categories of component and product demand and to establish optimal levels and manufacturing capacity. If we are unable to secure enough components and/or finished products at reasonable prices or of acceptable quality to build new products in a timely manner in the quantities or configurations needed, our revenue and gross margins could suffer until other sources can be developed. In addition, our gross margins vary significantly by product line, sales geography and customer type, as well as within product lines. When the mix of products sold shifts from higher margin product lines to lower margin product lines, to lower margin sales geographies, or to lower margin products within product lines, our overall gross margins and our profitability may be adversely affected. Moreover, as we expand within and into new product categories, our products in those categories may have lower gross margins than in our traditional product categories. If we are unable to offset these potentially lower margins by enhancing the margins in our more traditional product categories, our profitability may be adversely affected.

As our global manufacturing partners and a significant number of distributors are located outside of the United States, we rely upon logistics providers to transport goods around the world. As supply chains have become more constrained, the need to expedite shipments to manufacturing facilities and customers has increased. Further, we continue to experience higher transportation and fuel costs which has resulted in decreased margins and may result in the future in increased inventory and further margin decline, which would adversely affect our results of operations and financial condition.

Changes in trade policy, including tariffs and the tariffs focused on China in particular, and currency exchange rates also have adverse impacts on our gross margins. The COVID-19 pandemic put pressure on our gross margins and caused us to face uncertain product demand and incur increased air freight and other costs to fulfill sell through demand, replenish channel inventory, and maintain market share.

ITEM 1A - RISK FACTORS

The impact of these factors on gross margins can create unanticipated fluctuations in our operating results, which may cause volatility in the price of our stock.

Global economic conditions have adversely affected our business in the past and could adversely affect our revenues and harm our business in the future.

Adverse economic conditions worldwide have contributed to slowdowns in the communications industry and have caused a negative impact on the specific segments and markets in which we operate. Adverse changes in general global economic conditions can result in reductions in capital expenditures by end-user customers for our products, longer sales cycles, the deferral or delay of purchase commitments for our products and increased competition. These factors have adversely impacted our operating results in prior periods and could also impact us again in the future. Global economic concerns, such as rising inflation rates, the varying pace of global economic recovery, European and domestic debt and budget issues, the slowdown in economic growth in large emerging markets such as China and India, and international currency fluctuations, may continue to create uncertainty and unpredictability in the global and national economy. A global economic downturn would negatively impact technology spending for our products and services and could materially adversely affect our business, operating results and financial condition. Further, global economic conditions may result in a tightening in the credit markets, low liquidity levels in many financial markets, decrease in customer demand and ability to pay obligations, and extreme volatility in credit, equity, foreign currency and fixed income markets.

Such adverse economic conditions could negatively impact our business, particularly our revenue potential, potentially causing losses on investments and the collectability of our accounts receivable. These factors potentially include: the inability of our customers to obtain credit to finance purchases of our products and services, customer or partner insolvencies or bankruptcies, decreased customer confidence to make purchasing decisions resulting in delays in their purchasing decisions, decreased customer demand or demand for lower-end products, or decreased customer ability to pay their obligations when they become due to us.

Our operations may be impacted by the Russian invasion of Ukraine

On February 24, 2022, Russia launched an invasion of Ukraine which has resulted in increased volatility in various financial markets and across various sectors. The United States and other countries, along with certain international organizations, have imposed economic sanctions on Russia and certain Russian individuals, banking entities and corporations as a response to the invasion. The extent and duration of the military action, resulting sanctions and future market disruptions in the region are impossible to predict. Moreover, the ongoing effects of the hostilities and sanctions may not be limited to Russia and Russian companies and may spill over to and negatively impact other regional and global economic markets of the world, including Asia, Europe and the United States. The ongoing military action along with the potential for a wider conflict could further increase financial market volatility and cause negative effects on regional and global economic markets, industries, and companies. It is not currently possible to determine the severity of any potential adverse impact of this event on our financial condition or results of operations.

We are a smaller Company than some of our competitors and may be more susceptible to market fluctuations, other adverse events, increased costs and less favorable purchasing terms.

Since we are a relatively small Company, there is a risk that we may be more susceptible to market fluctuations and other adverse events. In particular, we may be more susceptible to reductions in government and corporate spending from our government and enterprise customers. We may also experience increased costs and less favorable terms from our suppliers than some of our larger competitors who may have greater leverage in their purchasing spend. Any of these outcomes could result in loss of sales or our products being more costly to manufacture and thus less competitive. Any such unfavorable market fluctuations, reductions in customer spending or increased manufacturing costs could have a negative impact on our business and results of operations.

Difficulties in integrating future acquisitions could adversely affect our business.

Any acquisition involves numerous risks and challenges, including difficulties and time involved in integrating the operations, technologies and products of the acquired companies, entering new business or product lines, the diversion of our management's attention from other business concerns, geographic dispersion of operations, generating market demand for expanded product lines and the potential loss of key customers or employees of an acquired Company. Failure to achieve the anticipated benefits of any future acquisitions or to successfully integrate the operations of these or any other companies or assets we acquire, could also harm our business, results of operations and cash flows. Additionally, we cannot assure you that we will not incur material charges in future periods to reflect additional costs associated with any future acquisitions we may make.

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Profitability could be negatively impacted if we do not adequately forecast the demand for our products and are unable to monetize our long-term inventories.

As of December 31, 2022 we held approximately $2.7 million in long-term inventories. There can be no assurance that we will be able to successfully anticipate changing consumer preferences and product trends or economic conditions and, as a result, we may not successfully monetize our long-term inventory. Inventory levels in excess of consumer demand may result in inventory write-downs and the sale of excess inventory at discounted prices, which could have an adverse effect on the image and reputation of our brands and negatively impact profitability.

Conditions in India, Spain, and United Arab Emirates may affect our operations.

We have different teams working outside the U.S. in India, Spain, and United Arab Emirates offering various services. Our ability to operate the Company smoothly may be affected significantly if either one or more of these countries are adversely impacted by political, economic, security and military conditions in these countries.

Product obsolescence could harm demand for our products and could adversely affect our revenue and our results of operations.

Our industry is subject to technological innovations that could render existing technologies in our products obsolete and thereby decrease market demand for such products. If any of our products becomes slow-moving or obsolete and the recorded value of our inventory is greater than its market value, we will be required to write down the value of our inventory to its fair market value, which would adversely affect our results of operations. In limited circumstances, we are required to purchase components that our outsourced manufacturers use to produce and assemble our products. Should technological innovations render these components obsolete, we will be required to write down the value of this inventory, which could adversely affect our results of operations.

International sales account for a significant portion of our net revenue and risks inherent in international sales could harm our business.

International sales represent a significant portion of our total product revenue. We anticipate that the portion of our total product revenue from international sales will continue to increase as we further enhance our focus on developing new products for new markets, establishing new distribution partners, strengthening our presence in emerging economies, and improving product localization with country-specific product documentation and marketing materials. Our international business is subject to the financial and operating risks of conducting business internationally, including the following:

- unexpected changes in, or the imposition of, additional legislative or regulatory requirements;
- unique or more onerous environmental regulations;
- fluctuating exchange rates;
- tariffs and other barriers;
- difficulties in staffing and managing foreign sales operations;
- import and export restrictions;
- greater difficulties in accounts receivable collection and longer payment cycles;
- potentially adverse tax consequences;
- potential hostilities and changes in diplomatic and trade relationships; and
- disruption in services due to natural disaster, economic or political difficulties, transportation, quarantines or other restrictions associated with infectious diseases.

ITEM 1A - RISK FACTORS

We may not be able to hire and retain qualified key and highly-skilled technical employees, which could affect our ability to compete effectively and may cause our revenue and profitability to decline.

We depend on our ability to hire and retain qualified key and highly skilled employees to manage, research and develop, market, and service new and existing products. Competition for such key and highly-skilled employees is intense, and we may not be successful in attracting or retaining such personnel. To succeed, we must hire and retain employees who are highly skilled in the rapidly changing communications and Internet technologies. Individuals who have the skills and can perform the services we need to provide our products and services are in great demand. Because the competition for qualified employees in our industry is intense, hiring and retaining employees with the skills we need is both time-consuming and expensive. We may not be able to hire enough skilled employees or retain the employees we do hire. In addition, provisions of the Sarbanes-Oxley Act of 2002 and related rules of the SEC impose heightened personal liability on some of our key employees. The threat of such liability could make it more difficult to identify, hire and retain qualified key and highly-skilled employees.

We have relied on our ability to grant stock options as a means of recruiting and retaining key employees. Accounting regulations requiring the expensing of stock options will impair our future ability to provide these incentives without incurring associated compensation costs. If we are unable to hire and retain employees with the skills we seek, our ability to sell our existing products, systems, or services or to develop new products, systems, or services could be hindered with a consequent adverse effect on our business, results of operations, financial position, or liquidity. In addition, given the current political climate regarding the U.S. immigration laws, we may not be able attract highly-skilled technical employees from abroad.

We are dependent on our key personnel whose continued service is not guaranteed.

We are dependent upon key personnel for the execution of our business strategies, including our chief executive officer and chief financial officer, neither of whom is subject to an employment agreement with us and we do not have key man life insurance for any of our executive officers. Accordingly, the loss of services of our executive officers could have a material adverse effect on our financial condition and results of operations.

We rely on third-party technology and license agreements, the loss of any of which could negatively impact our business.

We have licensing agreements with various suppliers for software and hardware incorporated into our products. These third-party licenses may not continue to be available to us on commercially reasonable terms, if at all. The termination or impairment of these licenses could result in delays of current product shipments or delays or reductions in new product introductions until equivalent designs can be developed, licensed, and integrated, if at all possible, which would have a material adverse effect on our business.

We may have difficulty in collecting outstanding receivables.

We grant credit to substantially all of our customers without requiring collateral. In times of economic uncertainty, the risks relating to the granting of such credit will typically increase. Although we monitor and mitigate the risks associated with our credit policies, we cannot ensure that such mitigation will be effective. We have experienced losses due to customers failing to meet their obligations. Future losses could be significant and, if incurred, could harm our business and have a material adverse effect on our operating results and financial position.

Interruptions to our business could adversely affect our operations.

As with any Company, our operations are at risk of being interrupted by earthquake, fire, flood, and other natural and human-caused disasters, including disease and terrorist attacks. Our operations are also at risk of power loss, telecommunications failure, human error, physical or electronic security breaches and computer viruses (which could leave us vulnerable to the loss of confidential proprietary information as well as disruption of our business activities) and other infrastructure and technology-based problems. To help guard against such risks, we carry business interruption loss insurance to help compensate us for losses that may occur, but we cannot assure that such coverage would protect us from all such possible losses.

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Security breaches and other disruptions could compromise our information and expose us to liability, which would cause our business and reputation to suffer.

In the ordinary course of our business, we collect and store sensitive data, including intellectual property, our proprietary business information and that of our employees, customers, licensors, vendors and business partners, including personally identifiable information of our customers and employees, in our data centers and on our networks. Despite our security measures, our information technology and infrastructure may be vulnerable to attacks by hackers or breached due to employee error, malfeasance or other disruptions. Security breaches have occurred with increased frequency and sophistication in recent years. Any such breach could compromise our networks and the information stored there could be accessed, publicly disclosed, lost or stolen. Any such access, disclosure or other loss of information could result in legal claims or proceedings, liability under laws that protect the privacy of personal information, disrupt our operations, and damage our reputation, which could adversely affect our business.

We may require additional financing to fund future operations, which may not be available to us on acceptable terms or at all.

As of December 31, 2022, we had approximately $1.0 million of cash and cash equivalents. Although we anticipate having sufficient cash on hand, cash from future operations and cash from the sale of marketable securities to fund our operations for the next twelve months, there can be no assurance that efforts to enforce our patents will be successful or that our marketing and sales efforts will progress as anticipated or that our cash generated from operations will be as expected, and we may need additional debt or equity financing in the next twelve months to execute our business plan and to be able to continue as a going concern. If in the future, we fail to satisfy the continued listing standards of Nasdaq, we may not be able to sell shares of our common stock. Accordingly, if additional debt or equity financings are needed, market conditions may limit our ability to raise capital on favorable terms, or at all, and the terms of any public or private offerings of debt or equity securities likely would be significantly dilutive to existing shareholders.

Risks Relating to Share Ownership

As a result of Edward D. Bagley's *significant share ownership position in the Company, he is able to influence corporate matters.*

Based solely on filings by Edward D. Bagley under Regulation 13D and Section 16 of the Exchange Act, Mr. Bagley beneficially owns approximately 43% of our issued and outstanding shares of common stock. Pursuant to the Note Purchase Agreement, dated December 8, 2019, by and between Mr. Bagley and the Company, Mr. Bagley has a security interest in substantially all of the assets of the Company as well as certain observer rights with respect to meetings of our board of directors, and the Company is restricted from issuing shares of common stock at a purchase price less than $2.11 per share except in certain limited, extraordinary transactions. In addition, Mr. Bagley's daughter, Lisa Higley, is a member of our board of directors. Based on Mr. Bagley's significant share ownership, as well as his security interests in substantially all of our assets, Mr. Bagley will be able to significantly influence who serves on our board of directors and the outcome of matters required to be submitted to our stockholders for approval, including, without limitation, decisions relating to the outcome of any proposed merger or consolidation of our company and Mr. Bagley's significant interest in us may discourage third parties from seeking to acquire control of us, which may adversely affect the market price of our common stock. In addition, based solely on filings by other members of Mr. Bagley's family and their family trusts under Regulation 13D and Section 16 of the Exchange Act, such family members and their family trusts collectively beneficially own an additional 14.9% of our outstanding shares of common stock, however, Mr. Bagley asserts he does not have control over and disclaims beneficial ownership of such shares. Mr. Bagley's interests and the interests of his family and their family trusts may not be consistent with those of our other stockholders.

Global Financial, Economic and Social Conditions Could Deteriorate.

Our business could be materially affected by conditions in the global financial markets and economic conditions generally. The recent outbreak of a novel coronavirus, which causes the disease now known as COVID-19, was first identified in December 2019 in Wuhan, China, and has since spread globally. Government efforts to contain the spread of the coronavirus through lockdowns of cities, business closures, restrictions on travel and emergency quarantines, among others, and responses by businesses and individuals to reduce the risk of exposure to infection, including social distancing in the form of reduced travel, cancellation of meetings and public and private events, and implementation of work-at-home policies, among others, have caused significant disruptions to the global economy and normal business operations across a growing list of sectors and countries, including in the United States.

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The foregoing have, and are likely to continue to adversely affect business confidence and consumer sentiments, and have been, and may continue to be, accompanied by significant volatility and declines in financial markets and asset values. The spread of the coronavirus, particularly if its development into a worldwide health crisis worsens, also may have broader macro-economic implications, including reduced levels of economic growth and possibly a global recession, the effects of which could be felt well beyond the time the pandemic is contained, and which could adversely affect demand for our products and our results of operations and financial condition. The impact of COVID-19 on any of our suppliers, co-manufacturers, distributors or transportation or logistics providers may negatively affect the price and availability of our products and impact our supply chain. If the pandemic continues to evolve into a severe worldwide health crisis, the disease could have a material adverse effect on our business, results of operations, financial condition and cash flows and adversely impact the trading price of our common stock.

Our stock price fluctuates as a result of the conduct of our business and stock market fluctuations.

The market price of our common stock has experienced significant fluctuations and may continue to fluctuate significantly. The market price of our common stock may be significantly affected by a variety of factors, including the following:

- statements or changes in opinions, ratings, or earnings estimates made by brokerage firms or industry analysts relating to the market in which we do business or relating to us specifically;
- disparity between our reported results and the projections of analysts;
- the shift in sales mix of products that we currently sell to a sales mix of lower-gross profit product offerings;
- the level and mix of inventory held by our distributors;
- the announcement of new products or product enhancements by us or our competitors;
- technological innovations by us or our competitors;
- success in meeting targeted availability dates for new or redesigned products;
- the ability to profitably and efficiently manage our supply of products and key components;
- the ability to maintain profitable relationships with our customers;
- the ability to maintain an appropriate cost structure;
- quarterly variations in our results of operations;
- general consumer confidence or market conditions, or market conditions specific to technology industry;
- domestic and international economic conditions;
- unexpected changes in regulatory requirements and tariffs;
- our ability to report financial information in a timely manner;
- the markets in which our stock is traded;
- our ability to integrate the companies we have acquired; and
- our ability to successfully utilize our cash reserves resulting from the settlement of litigation and arbitration matters.

Rights to acquire our common stock could result in dilution to other holders of our common stock.

As of December 31, 2022, there were outstanding options to acquire approximately 488,477 shares of our common stock at a weighted average exercise price of $6.48 per share. In addition, as of December 31, 2022 there were outstanding warrants and convertible instruments to acquire approximately 5,932,076 shares at weighted average exercise price of $2.47. During the terms of these options, warrants and convertibles the holders thereof will have the opportunity to profit from an increase in the market price of the common stock. The existence of these derivatives may adversely affect the terms on which we can obtain additional financing, and the holders of these derivatives can be expected to exercise such options at a time when we, in all likelihood, would be able to obtain additional capital by offering shares of our common stock on terms more favorable to us than those provided by the exercise of these derivatives.

ITEM 1A - RISK FACTORS

The sale of additional shares of our common stock could have a negative effect on the market price of our common stock.

The sale of substantial amounts of our common stock in the public market, such as the Rights Offering that we completed in December 2018, Notes and Warrants that we issued in December 2019, Common Stock and Warrants that we issued in 2020 and 2021, and exchange of common stock for the cancellation of short-term bridge loan could adversely affect prevailing market prices and could impair our ability to raise capital through the sale of our equity securities. Most shares of common stock currently outstanding are eligible for sale in the public market, subject in certain cases to compliance with the requirements of Rule 144 under the securities laws. Shares issued upon the exercise of stock options granted under our stock option plan generally will be eligible for sale in the public market. We also have the authority to issue additional shares of common stock and shares of one or more series of preferred stock. The issuance of such shares could dilute the voting power of the currently outstanding shares of our common stock and could dilute earnings per share.

Because we have suspended the payment of dividends on our common stock, stockholders will benefit from an investment in our stock only if it appreciates in value unless a decision is made to reinstate dividend payments.

Any future determination as to the declaration and payment of cash dividends will be at the discretion of our board of directors and will depend on factors the board of directors deems relevant, including among others, our results of operations, financial condition and cash requirements, business prospects, and the terms of our secured convertible notes and other financing arrangements. Accordingly, unless a declaration and payment of cash dividends is made, realization of a gain on stockholders' investments will depend on the appreciation of the price of our stock. There is no guarantee that our stock will appreciate in value or a dividend declaration will be made.

If equity research analysts do not publish research or reports about our business or if they issue unfavorable commentary or downgrade our common stock, the price of our common stock could decline.

The liquidity of the trading market for our common stock may be affected in part by the research and reports that equity research analysts publish about us and our business. We do not control the opinions of these analysts. The price of our stock could decline if one or more equity analysts downgrade our stock or if those analysts issue other unfavorable commentary or cease publishing reports about us or our business.

Our certification of incorporation designates the Court of Chancery in the State of Delaware as the sole and exclusive forum for certain actions or proceedings that may be initiated by our stockholders, which could discourage claims or limit stockholders' ability to make a claim against the Company, our directors, officers, and employees.

Our certificate of incorporation states that unless we consent in writing to the selection of an alternative forum, the Court of Chancery in the State of Delaware shall be the sole and exclusive forum for any stockholder to bring (i) any derivative action or proceeding brought on behalf of the Company, (ii) any action asserting a claim for breach of a fiduciary duty owed by any director, officer, employee or agent of the Company to the Company or the Company's stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, our certificate of incorporation or our bylaws or (iv) any action asserting a claim governed by the internal affairs doctrine, in each case subject to the Delaware Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein.

These exclusive forum provisions do not apply to claims under the Securities Act or the Exchange Act. The exclusive forum provision may discourage claims or limit stockholders' ability to submit claims in a judicial forum that they find favorable and may create additional costs as a result. If a court were to determine the exclusive forum provision to be inapplicable and unenforceable in an action, we may incur additional costs in conjunction with our efforts to resolve the dispute in an alternative jurisdiction, which could have a negative impact on our results of operations.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 2. PROPERTIES

We occupy a 1,350 square-foot facility in Gainesville, Florida under the terms of an operating lease expiring in February 2028. The Gainesville facility is used primarily to support our research and development activities.

We occupy a 21,443 square-foot facility in Salt Lake City, Utah under the terms of an operating lease, which has been amended in February 2023 to expire in February 2028. Under the terms of this amendment, we will reduce our space to approximately 9,402 square feet. The facility supports our principal administrative, sales, marketing, customer support, and research and product development activities.

We occupy a 6,175 square-foot facility in Chennai, India under the terms of an operating lease expiring in August 2023. This facility supports our administrative, marketing, customer support, and research and product development activities.

We occupy a 40,000 square-foot warehouse in Salt Lake City, Utah under the terms of an operating lease expiring in April 2025, which serves as our primary inventory fulfillment center.

We believe our current facilities are adequate to meet our needs for the foreseeable future and that suitable additional or alternative space will be available in the future on commercially reasonable terms as needed.

ITEM 3. LEGAL PROCEEDINGS

See Note 8 – Commitments and Contingencies-Legal Proceedings of the Notes to Consolidated Financial Statements (Part II, Item 8) for information regarding legal proceedings in which we are involved, which is incorporated in this Item 3 by reference.

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

Market Information

Our common stock is traded on the NASDAQ Capital Market under the symbol CLRO. On March 30, 2023, there were 23,955,767 shares of our common stock issued and outstanding held by approximately 294 shareholders of record. Each broker dealer or a clearing corporation that holds shares for customers is counted as a single shareholder of record.

Dividends

The Company paid a cash dividend of $0.07 per share of ClearOne common stock in the first quarter of 2018. On June 13, 2018, the Company announced the suspension of its dividend program until such time as the Company deems it appropriate to once again declare dividends.

Issuer Purchases of Equity Securities

None.

Sales of Unregistered Securities

None.

Equity Compensation Plan Information.

Information about the Company's equity compensation plans required by Item 201(d) of Regulation S-K is set forth under Part III, Item 12 of this Annual Report on Form 10-K.

ITEM 6. RESERVED

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion should be read in conjunction with our consolidated financial statements and related notes included in this report, as well as our other filings with the SEC. This discussion contains forward-looking statements based on current expectations that involve risks and uncertainties, such as our plans, objectives, expectations, and intentions, as set forth under "Disclosure Regarding Forward-Looking Statements." Our actual results and the timing of events could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth in the following discussion and under the caption "Risk Factors" in Item 1A and elsewhere in this report.

OVERVIEW

ClearOne is a global Company that designs, develops and sells conferencing, collaboration, and AV networking solutions for voice and visual communications. The performance and simplicity of our advanced, comprehensive solutions offer a high level of functionality, reliability and scalability. We derive a major portion of our revenue from audio conferencing products and microphones by promoting our products in the professional audio-visual channel. We have extended our total addressable market from the installed audio conferencing market to adjacent complementary markets – microphones, video collaboration and AV networking. We have achieved this through strategic technological acquisitions as well as by internal product development.

In early January 2022, we introduced DIALOG® 10 USB, the industry's only pro-quality, single-channel wireless USB microphone system offering professional-quality audio with USB connectivity for webcasting and cloud-based collaboration. In March 2022, this new USB wireless mic system won the 2022 NSCA Excellence in Product Innovation Award. One of only seven winners in this prestigious award program, the DIALOG 10 USB is the industry's only pro-quality single-channel wireless microphone system with USB connectivity for webcasting and cloud-based collaboration such as Microsoft Teams, Zoom, WebEx, and GotoMeeting. DIALOG 10 USB won its second award in May 2022 by winning the 2022 Top New Technology (TNT) Award in the Microphone category. In June 2022, at Infocomm 2022 in Las Vegas, Nevada, DIALOG 10 USB won two additional awards - Commercial Integrator 2022 BEST Award in the Microphones category and 2022 Sound & Video Contractor Magazine Infocomm Best in Market Award.

In January 2022, at the Las Vegas Customer Electronics Show, CES 2022, the world's most influential annual tech event, our home office Aura™ Xceed™ BMA was singled out for exceptional innovation with a CES Picks Award, presented by Residential Systems magazine.

In early February 2022, our Versa Lite CT, a USB audio-enabled Beamforming Ceiling Tile Microphone that brings cost-effective and superb professional conferencing audio to small- and mid-sized spaces received Google Meet certification. Google Meet ranks among the top 5 for growth in the cloud meetings and team collaboration market according to Frost & Sullivan.

In early February 2022, we were awarded a new patent for a beamforming microphone array system with distributed processing. This patent claims a ceiling tile microphone array that can be physically separated from the processors running the beamforming algorithm. It enables a single computing engine to run multiple beamforming algorithms for multiple microphone arrays, which can lower the overall system cost compared to an integrated design that is limited to a single computing engine with a single microphone array. Later in the same month another ClearOne patent was granted which is related to beamforming microphone arrays with acoustic echo cancellation. The patent, titled "Band-Limited Beamforming Microphone Array with Acoustic Echo Cancellation," describes, among other things, a microphone array with one set of microphones used for beamforming, and one or more additional microphones that are not used for beamforming, but instead are used to enhance the audio performance of the microphone array.

In March 2022, we were awarded a new patent titled "Conferencing Apparatus", that describes, among other things, a beamforming microphone array with acoustic echo cancellation and a set of configurable fixed beams. The patent goes on to describe performing a direction of arrival determination, and in response to that determination, selecting one or more of those fixed beams for audio transmission.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

In April 2022, a ClearOne patent issued titled “Ceiling Tile Microphone,” that claims, among other things, a ceiling tile beamforming microphone that is powered through Power over Ethernet (PoE). Later in the same month another ClearOne patent was granted, also titled “Ceiling Tile Microphone,” that claims, among other things, a ceiling tile microphone that includes beamforming, acoustic echo cancellation, and auto voice tracking.

In May 2022, for the sixth time since its groundbreaking debut in 2020, the ClearOne BMA 360 microphone has been recognized by the world’s most discerning AV buyers with the prestigious Best in Market Award at ISE 2022. The microphone was one of only three winners in this year’s award program. The Best in Market Award program is presented by leading industry publication Sound & Video Contractor at Integrated Systems Europe (ISE), the world’s largest AV and systems integration show. The program recognizes the most innovative technology within the AV industry, and the judges include respected AV and IT managers, directors, engineers, industry consultants and integrators.

In July 2022, we introduced the CONVERGENCE® InSite server network hardware that enables remote device management by facilitating bi-directional communications between its Cloud or Enterprise AV Manager and on-site ClearOne Pro Audio products.

At the end of October 2022, we announced the introduction of UNITE 60, a new wide angle 4K USB camera featuring AI-powered smart face and voice tracking, along with electronic PTZ (pan/tilt/zoom) capabilities. With a 120-degree field of view, and a plug-and-play USB 3.0 connection for video, control, and power, the new UNITE® 60 camera is ideally suited for rooms such as executive offices, huddle rooms, or smaller conference rooms. The UNITE 60 camera leverages a wide dynamic range and super-high SNR with advanced 2D and 3D noise reduction to deliver excellent visuals across varied lighting conditions. In addition to the AI auto-tracking feature, the camera can also be controlled via IR remote or UVC protocol. The camera can be paired with a wide variety of microphones and speakers.

In November 2022, we announced the introduction of UNITE 160, a new camera that offers cutting-edge 4K UHD performance with 12x optical zoom capabilities, remote-controlled mechanical pan and tilt as well as AI-powered smart face tracking and auto framing. This camera is designed to capture all participants in large rooms while enabling automated focus on a moving presenter, making it ideal for larger spaces including board rooms, training centers, conference rooms and classrooms. This new camera offers an integrated AI-based camera tracking solution for rooms that are a fit for ClearOne's single Versa Lite CT and a single camera. This new lower-cost camera tracking configuration eliminates the need for a DSP mixer and a control system.

Throughout 2022, we continued our efforts to protect our intellectual property rights, including through litigation. On December 9, 2022 we entered into a confidential settlement and license agreement under which we received a one-time settlement payment of $55 million in January 2023. Under the terms of this agreement, both parties dismissed with prejudice all the litigations between the parties and released all claims against each other in connection with the litigations. The parties also agreed to cross-license certain patents to each other and certain covenants not to sue. See also Part II, Item 1. Legal Proceedings.

We also continued our programs to cut costs and to speed up product development that we believe will enable us to get back to a growth path.

During 2022, our overall revenue of $25.2 million decreased by 13% when compared to revenue during 2021. The decrease in revenues from video products and microphones were partially offset by an increase in revenues from audio conferencing. The revenue decline was primarily due to the decline in demand for video products and due to our inability in the second half of 2022 to source adequate inventory to meet the demand for professional audio products and BMA due to the ongoing transition of manufacturing of our products from China to Singapore by our EMS provider and the increased costs associated with the electronic raw material supply shortages that have affected the global manufacturing of high tech products. We expect these supply shortages and associated increased costs to continue through at least the first half of 2023.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Our gross profit margin decreased to 38% during 2022 from 41% in 2021. Net loss of $7.7 million in 2021 changed to net income of $21.6 million in 2022. The change from net loss to net income was primarily due to the recognition of a gain of $33.6 million and included under other income related to the one-time legal settlement receivable of $55 million net of unamortized capitalized legal expenses of $21.4 million. This gain was partially offset by operating loss of $7.2 million and a tax provision of $6.9 million.

Industry conditions

We operate in a very dynamic and highly competitive industry which is dominated on the one hand by a few players with respect to certain products like traditional video conferencing appliances while on the other hand influenced heavily by a fragmented reseller market consisting of numerous regional and local players. The industry is also characterized by venture capitalist funded start-ups and private companies willing to fund cumulative cash losses in order to gain market share and achieve certain non-financial goals. It has become increasingly important to have higher interoperability with other products in the audio visual market as well as with leading video conferencing service providers like Microsoft and Zoom.

Economic conditions, challenges and risks

The audio-visual products market is characterized by intense competition and rapidly evolving technology. Our competitors vary within each product category. Our installed professional audio conferencing products, which is our flagship product category, continue to be ahead of the competition despite the reduction in revenues. Our strength in this space is largely due to our fully integrated suite of products consisting of DSP mixers, wide range of professional microphone products and video collaboration products. Despite our strong leadership position in the installed professional audio conferencing market, we face challenges to revenue growth due to the limited size of the market, pricing pressures from new competitors attracted to the commercial market due to higher margins, our limited ability to be interoperable with other audio visual products in the market, and the lack of certifications from Microsoft.

Our video products and beamforming microphone arrays, especially highly advanced BMA 360 and BMA-CT are critical to our long term growth. We face intense competition in this market from well-established market leaders as well as emerging players rich with marketing funds. We expect our strategy of making our products more interoperable with other audio-visual products, continuing to improve the quality of our high-end audio conferencing products and microphones, and offering a wide range of innovative professional cameras will generate high growth in the near future.

We derive a significant portion of our revenue (approximately 52% in 2022) from international operations and expect this trend to continue in the future. Most of our revenue from outside the U.S. is billed in U.S. dollars and is not exposed to any significant currency risk. However, we are exposed to foreign exchange risk if the U.S. dollar is strong against other currencies as it will make U.S. Dollar denominated prices of our products less competitive.

In December 2019, a novel strain of coronavirus ("COVID-19") started spreading from China and was declared a pandemic. The COVID-19 pandemic caused severe global disruptions and had varying impact on our business. The installed audio conferencing market was negatively impacted due to lockdowns, postponement of projects and restrictions on installers to visit commercial sites. On the other hand, COVID-19 generated higher than normal demand in 2020 for our video products and personal conferencing products due to the significant expansion of work-from-home market. The extent of COVID-19's effect on our operational and financial performance keeps evolving and depends on multiple factors including the severity and infectiousness of current and future virus strains, effectiveness of vaccines especially on novel strains of COVID-19, government regulations, etc., all of which are uncertain and difficult to predict considering the rapidly evolving landscape. Supply chain disruptions resulting from COVID-19 have caused significant fluctuations in our costs of goods resulting in a reduction of our gross margins in 2021 and 2022. We expect these fluctuations to continue in 2023. If the pandemic continues to be a severe worldwide health crisis, the disease could have a material adverse effect on our business, results of operations, financial condition and cash flows and adversely impact the trading price of our common stock.

Deferred Revenue

Deferred revenue increased from $54 thousand in 2021 to $63 thousand in 2022 due to a small increase in new subscriptions to the video conferencing software.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

DISCUSSION OF RESULTS OF OPERATIONS

The following table sets forth certain items from our consolidated statements of operations and comprehensive income (loss) for the years ended December 31, 2022 and 2021, together with the percentage change each item represents. Throughout this discussion, we compare results of operations for the year ended December 31, 2022 (“2022”) to the year ended December 31, 2021 (“2021” or “the comparable period”).

(In thousands, except percentages)	2022	2021	Change Favorable (Adverse) in %
Revenue	$ 25,205	$ 28,967	(13)
Cost of goods sold	15,748	17,051	8
Gross profit	9,457	11,916	(21)
Sales and marketing	5,517	6,736	18
Research and product development	4,390	5,794	24
General and administrative	6,772	6,881	2
Total operating expenses	16,679	19,411	14
Operating loss	(7,222)	(7,495)	4
Income (loss) before income taxes	27,460	(7,977)	444
Provision for (benefit from) income taxes	6,904	(283)	(2,540)
Net income (loss)	$ 20,556	$ (7,694)	367

Revenue

Our revenue decreased by 13% to $25.2 million in 2022 compared to $29.0 million of revenue in 2021. The highest decline in revenue was seen in video products with a 45% decrease, followed by a decrease in microphones of 10%. These decreases were partially offset by a 2% increase in revenues from audio conferencing. Video products suffered a decline in revenues in 2022 compared to 2021 due to a lack of demand for video products due to bottoming of demand for the work from home and learn from home markets and due to extreme pricing pressures. Except for professional audio conferencing category under audio conferencing products every other category suffered revenue decreases during 2022. Cameras as a category declined the most followed by video conferencing equipment and personal audio conferencing categories. Revenue from these categories declined due to reduced demand for these products. Revenue from beamforming microphone arrays reduced mainly due to our inability to procure adequate supply of inventory due to the ongoing transition of manufacturing from China to Singapore.

We expect our revenues for professional audio conferencing and beamforming microphone arrays to be adversely impacted at least through the first half of 2023 due to the delay in the completion of transition of outsourced manufacturing from China to Singapore. We believe our revenues in the second half of 2023 will be positively impacted by new product introductions, which would leverage our advanced beamforming microphone array technology and our recent initiative to improve the interoperability of our products with audiovisual products made by other manufacturers. Despite the introduction of new cameras in 2022, we expect the challenging market conditions for our video products to continue through 2023.

The share of audio conferencing products in our product mix increased significantly from 40% in 2021 to 47% in 2022. The share of microphones in the revenue mix increased slightly from 38% in 2021 to 39% in 2022. Share of video products in the revenue mix declined significantly from 22% in 2021 to 14% in 2022.

During 2022, revenue decreased significantly in all regions of the world. Asia Pacific including the Middle East decreased by 5%, Europe and Africa decreased by 24% and the Americas decreased by approximately 12%.

We believe, although there can be no assurance, that we can return to revenue growth and generating operating profits through our strategic initiatives namely product innovation, focus on core products and cost reduction.

Cost of Goods Sold and Gross Profit

Cost of goods sold ("COGS") includes expenses associated with finished goods purchased from outsourced manufacturers, the manufacture of our products (including material and direct labor), our manufacturing and operations organization, property and equipment depreciation, warranty expense, freight expense, and the allocation of overhead expenses.

Our gross profit during 2022 was approximately $9.5 million or 38% compared to approximately $11.9 million or 41% in 2021. The gross profit margin was negatively impacted due to increase in material costs due to supply chain constraints and increased administration costs as a percentage of revenue partially offset by reduction in inventory obsolescence and freight and tariff costs.

Our profitability in the near-term continues to depend significantly on our revenues from audio conferencing products. We hold long-term inventory and if we are unable to sell our long-term inventory, our profitability might be affected by inventory write-offs and price mark-downs. Our long-term inventory includes approximately $0.5 million of wireless microphone-related finished goods and assemblies, $1 million of video products and about $1 million of raw materials that will be used primarily for manufacturing installed professional audio conferencing products.

Operating Expenses and Profits (Losses)

Operating income (loss), or income (loss) from operations, is the surplus or deficit after operating expenses are deducted from gross profits. Operating expenses include sales and marketing ("S&M") expenses, research and product development ("R&D") expenses and general and administrative ("G&A") expenses. Total operating expenses were $16.7 million in 2022, compared to $19.4 million in 2021. The following contains a more detailed discussion of expenses related to sales and marketing, research and product development, general and administrative, and other items.

Sales and MarketingS&M expenses include sales, customer service, and marketing expenses such as employee-related costs, allocations of overhead expenses, trade shows, and other advertising and selling expenses.

S&M expenses in 2022 decreased to $5.5 million, compared to $6.7 million in 2021. The decrease was primarily due to (a) decreases in employment expenses and consultant expenses, (b) a decrease in commissions paid to employees and full-time consultants (c) a decrease in employee benefits costs, and (d) a decrease in costs of inventory used for sales demonstrations. This overall decrease was partially offset by (a) an increase in trade-show-related costs, (b) an increase in travel expenses, and (c) an increase in commissions paid to independent manufacturer representatives.

Research and Product Development R&D expenses include research and development, product line management, engineering services, and test and application expenses, including employee-related costs, outside services, expensed materials, depreciation, and an allocation of overhead expenses.

R&D expenses decreased from $5.8 million in 2021to $4.4 million in 2022. The decrease was primarily due to (a) a decrease in project-related expenses and (b) a decrease in employment expenses including salaries and benefits.

General and Administrative G&A expenses include employee-related costs, professional service fees, allocations of overhead expenses, litigation costs, and corporate administrative costs, including costs related to finance and human resources.

G&A expenses decreased marginally to $6.8 million in 2022,compared to $6.9 million in 2021. The decrease was primarily due to (a) a decrease in legal expenses (b) a decrease in consulting expenses, and (c) a decrease in regular employment expenses including salaries and benefits. This decrease was mostly offset by (a) increases in bonuses paid to employees and executives, and (b) an increase in amortization of capitalized legal costs related to patents litigation.

Other income (expense), net

Other income (expense), net includes interest income and foreign currency changes. Other income during 2022 includes (a) $1.5 million recognized on the gain arising from the CARES Act Paycheck Protection Program loan forgiveness, and (b) a gain recognized of $33.6 million related to the one-time legal settlement receivable of $55 million, net of unamortized capitalized legal expenses of $21.4 million. Other items remained immaterial in 2022 and 2021.

Interest expense decreased to $0.4 million in 2022 compared to $0.5 million in 2021.

Provision for income taxes

The effective tax provision rate was 25% in 2022, compared to 4% effective tax benefit rate during 2021. Income tax provision for 2022 was $6.9 million as compared to an income tax benefit of $0.3 million in 2021. The significant change in income taxes was primarily due to an increase in net income due to the recognition of a one-time settlement payment. We have been recording a valuation allowance against net deferred tax assets since 2018 and have not been claiming tax benefit for our losses as we have concluded that it is more likely than not that our deferred tax assets were not realizable, primarily due to our recent pre-tax losses.

LIQUIDITY, CAPITAL RESOURCES AND FINANCIAL POSITION

As of December 31, 2022, our cash and cash equivalents were approximately $1.0 million compared to $1.1 million as of December 31, 2021. Our working capital was $69.3 million and $18.0 million as of December 31, 2022 and 2021, respectively.

Net cash flows used in operating activities were approximately $4.2 million during 2022, a decrease of approximately $0.2 million from $4.4 million used in operating activities in 2021. The decrease in cash used was due to (a) a change in net income by $28.3 million from a net loss of $7.7 million in 2021 to a net income of $20.6 million in 2022, (b) a decrease of $35.7 million in non-cash charges primarily due to the recognition of a gain from the one-time settlement payment which was not received before the end of the year, and (c) a decrease in cash outflows due to change in operating assets and liabilities of $7.6 million which included among other things cash inflows due to (i) a $6.8 million change in income tax receivable and (ii) a $5.5 million change in accounts payable, partially offset by (iii) a $3.2 million change in prepaid expenses.

Net cash provided by investing activities was $2.1 million in 2022 compared to $8.5 million used in investing activities in 2022, a decrease in cash used of $10.6 million. The decrease in cash used in investing activities in 2022 was primarily due to (a) a decrease of $7.1 million in capitalized legal spending, and (b) an increase in net cash inflows from sale of marketable securities of approximately $3.2 million.

Net cash provided by financing activities was $2.1 million during 2022 compared to net cash provided by financing activities of $10.2 million during 2021, a decrease in cash provided of $8.2 million. The decrease was primarily due to a decrease in cash raised through equity and debt issuances of $11.3 million in 2021 to $2.0 million in 2022. This decrease was partially offset by $0.8 million refund of CARES Act Paycheck Protection Program Loan.

Capitalization of patent defense costs. We capitalized external legal costs incurred in the defense of our patents when we believe that a significant, discernible increase in value will result from the defense and a successful outcome of the legal action is probable. When we capitalize patent defense costs we amortize the costs over the remaining estimated useful life of the patent, which is 15 to 17 years. During 2022 we spent $0.7 million of legal costs related to the defense of our patents and capitalized the entire amount. As of December 31, 2022, the unamortized balance of capitalized legal expenses of $21.4 million was fully netted against the one-time settlement amount of $55 million and a gain of $33.6 million was recognized.

In order to maintain liquidity, the Company has been actively engaged in preserving cash by implementing company-wide cost reduction measures and raising additional capital. The company raised additional capital in 2019 by issuing senior convertible notes, in 2020 by borrowing through the CARES Act Paycheck Protection Program and issuing common stock and warrants and in 2021 by issuing short-term notes and issuing common stock and warrants. In January 2022, the Company issued $2,000 in common stock as consideration for the cancellation and termination of the short-term notes. In October 2022, the Company issued short term notes to raise $2,000. In addition, the Company has been generating additional cash as our inventory levels are brought down to historical levels. The Company also believes that the Company's core strategies of product innovation and prudent cost management will bring the company back to profitability in the future. The Company believes, although there can be no assurance, that all of these measures and effective management of working capital, along with the current cash balance after the receipt of proceeds from legal settlement, will provide the liquidity needed to meet our operating needs through at least March 31, 2024.

As of December 31, 2022, we had open purchase orders of approximately $2.0 million mostly for purchase of inventory.

As of December 31, 2022, we had inventory totaling $11.7 million, of which non-current inventory accounted for $2.7 million. This compares to total inventories of $13.6 million and non-current inventory of $3.6 million as of December 31, 2021.

Contractual Obligations and Commitments

The following table summarizes our contractual obligations as of December 31, 2022 (in millions):

	Payment Due by Period				
	Total	Less Than 1 Year	1-3 Years	3-5 Years	More than 5 years
Senior Convertible Notes and short-term notes	$ 3.9	$ 3.9	$ —	$ —	$ —
Operating lease obligations	1.2	0.6	0.5	0.1	—
Purchase obligations	2.0	2.0	—	—	—
Total	$ 7.1	$ 6.5	$ 0.5	$ 0.1	$ —

Off-Balance Sheet Arrangements

We have no off-balance-sheet arrangements that have or are reasonably likely to have a current or future material effect on our financial condition, changes in financial conditions, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources, results of operations or liquidity.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Our discussion and analysis of our results of operations and financial position are based upon our consolidated financial statements, which have been prepared in conformity with U.S. generally accepted accounting principles ("GAAP"). We review the accounting policies used in reporting our financial results on a regular basis. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. We evaluate our assumptions and estimates on an ongoing basis and may employ outside experts to assist in our evaluations. We believe that the estimates we use are reasonable; however, actual results could differ from those estimates. Our significant accounting policies are described in Note 1 - Business Description, Basis of Presentation and Significant Accounting Policies to the Consolidated Financial Statements included in Part IV of this report. We believe the following critical accounting policies identify our most critical accounting policies, which are the policies that are both important to the representation of our financial condition and results and require our most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain.

Revenue and Associated Allowances for Revenue Adjustments and Doubtful Accounts

The Company recognizes revenue when it satisfies a performance obligation. The Company recognizes revenue from sales agreements upon transferring control of a product to the customer. This typically occurs when products are shipped or delivered, depending on the delivery terms, or when products that are consigned at customer locations are sold to dealers or end users. Revenue recognized during the twelve months ended December 31, 2022 for audio and video conferencing equipment sales was $25.1 million, and for software, licenses, etc. was $0.1 million. Sales returns and allowances are estimated based on historical experience. Provisions for discounts and rebates to customers, estimated returns and allowances, ship and credit claims and other adjustments are provided for in the same period the related revenues are recognized, and are netted against revenues. For returns, the Company recognizes a related asset for the right to recover returned products with a corresponding reduction to cost of goods sold. The Company reviews warranty and related claims activity and records provisions, as necessary.

Frequently, the Company receives orders with multiple delivery dates that may extend across reporting periods. Since each delivery constitutes a performance obligation, the Company allocates the transaction price of the contract to each performance obligation based on the stand-alone selling price of the products. The Company invoices the customer for each delivery upon shipment and recognizes revenues in accordance with delivery terms. Although payment terms vary, distributors typically pay within 45 days of invoicing and dealers pay within 30 days of invoicing. As scheduled delivery dates are within one year, revenue allocated to future shipments of partially completed contracts are not disclosed.

The Company has elected to record freight and handling costs associated with outbound freight after control over a product has transferred to a customer as a fulfillment cost and include it in cost of revenues. Taxes assessed by government authorities on revenue-producing transactions, including value-added and excise taxes, are presented on a net basis (excluded from revenues) in the Consolidated Statements of Operations and Comprehensive Income (Loss).

The details of deferred revenue and associated cost of goods sold and gross profit are as follows (in thousands):

	As of December 31,	
	2022	2021
Deferred revenue	$ 63	$ 54
Deferred cost of goods sold	—	—
Deferred gross profit	$ 63	$ 54

The Company offers rebates and market development funds to certain of its distributors, dealers/resellers, and end-users based upon the volume of product purchased by them. The Company records rebates as a reduction of revenue in accordance with GAAP.

The Company provides, at its discretion, advance replacement units to end-users on defective units of certain products under warranty. Since the purpose of these units is not revenue generating, the Company tracks the units due from the end-user, until the defective unit has been returned. Any amount due from the customer upon failure to return the products is accounted as receivable only after establishing customer's failure to return the products. The inventory due from the customer is accounted at cost or market value whichever is lower.

Impairment of Long-Lived Assets

We assess the impairment of long-lived assets, such as property and equipment and definite-lived intangible assets subject to amortization, whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset or asset group to estimated future undiscounted net cash flows of the related asset or group of assets over their remaining lives. If the carrying amount of an asset exceeds its estimated future undiscounted cash flows, an impairment charge is recognized for the amount by which the carrying amount exceeds the estimated fair value of the asset. Impairment of long-lived assets is assessed at the lowest levels for which there are identifiable cash flows that are independent of other groups of assets. The impairment of long-lived assets requires judgments and estimates. If circumstances change, such estimates could also change. Assets held for sale are reported at the lower of the carrying amount or fair value, less the estimated costs to sell.

Accounting for Income Taxes

We are subject to income taxes in both the United States and in certain non-U.S. jurisdictions. We account for income taxes following ASC 740, *Accounting for Income Taxes,* recognizing deferred tax assets and liabilities using enacted tax rates for the effect of temporary differences between book and tax basis of recorded assets and liabilities. We estimate our current tax position together with our future tax consequences attributable to temporary differences resulting from differing treatment of items, such as deferred revenue, depreciation, and other reserves for tax and accounting purposes. These temporary differences result in deferred tax assets and liabilities. We assess the likelihood that our deferred tax assets will be recovered from future taxable income, prior year carryback, or future reversals of existing taxable temporary differences. To the extent we believe that recovery is not more likely than not, we establish a valuation allowance against these deferred tax assets. Significant judgment is required in determining our provision for income taxes, our deferred tax assets and liabilities, and any valuation allowance recorded against our deferred tax assets.

To the extent we establish a valuation allowance in a period, we must include and expense the allowance within the tax provision in the consolidated statement of operations. In accordance with ASC Topic 740, "Accounting for Income Taxes", we analyzed our valuation allowance at December 31, 2022 and determined that based upon available evidence it is more likely than not that certain of our net deferred tax assets will not be realized and, accordingly, we have recorded a full valuation allowance against these deferred tax assets in the amount of $13.5 million. Please refer to Note 13 - Income Taxes in the Notes to Consolidated Financial Statements for additional information.

Share-Based Payments

We estimate the fair value of stock options using the Black-Scholes option pricing model, which requires certain estimates, including an expected forfeiture rate and expected term of options granted. We also make decisions regarding the method of calculating expected volatilities and the risk-free interest rate used in the option-pricing model. The resulting calculated fair value of stock options is recognized as compensation expense over the requisite service period, which is generally the vesting period. When there are changes to the assumptions used in the option-pricing model, including fluctuations in the market price of our common stock, there will be variations in the calculated fair value of our future stock option awards, which results in variation in the compensation cost recognized.

IMPACT OF RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS

For descriptions of recently issued accounting standards, see Note 1. Business Description, Basis of Presentation and Significant Accounting Policies of our Notes to Consolidated Financial Statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not Applicable

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Financial statements and supplementary data required by this are included herein as a separate section of this Form 10-K, beginning on page F-1, and are incorporated in this Item 8 by reference.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures designed to ensure that information required to be disclosed in our reports filed under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), is recorded, processed, summarized, and reported within the required time periods, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow for timely decisions regarding required disclosure. As required by Rule 13a-15 under the Exchange Act, we have completed an evaluation, under the supervision and with the participation of our management, including the Chief Executive Officer and the Chief Financial Officer, of the effectiveness and the design and operation of our disclosure controls and procedures as of December 31, 2022. Our disclosure controls and procedures are designed to provide reasonable assurance of achieving their objectives. Based upon this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of the end of the period covered by this Annual Report, our disclosure controls and procedures were effective at a reasonable assurance level as of December 31, 2022.

The effectiveness of any system of disclosure controls and procedures is subject to certain limitations, including the exercise of judgment in designing, implementing, and evaluating the controls and procedures, the assumptions used in identifying the likelihood of future events, and the inability to eliminate improper conduct completely. A controls system, no matter how well designed and operated, cannot provide absolute assurance that the objectives of the controls system are met, and no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within a Company have been detected. As a result, there can be no assurance that our disclosure controls and procedures will detect all errors or fraud.

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 Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2022 based on the framework set forth in *Internal Control - Integrated Framework* (2013 framework) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our assessment using that criteria, management concluded that the design and operation of our internal control over financial reporting were effective as of December 31, 2022.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the fourth fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS.

Not Applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The following table sets forth certain information regarding our directors and executive officers as of March 31, 2022.

Name	Age	Position	Director or Officer Since
Derek L. Graham	55	Chief Executive Officer	2022
Larry R. Hendricks	79	Director *	2003
Lisa B. Higley	55	Director	2020
Eric L. Robinson	56	Chairman, and Director *	2015
Bruce Whaley	72	Director *	2019
Narsi Narayanan	52	Chief Financial Officer and Corporate Secretary	2009

* Member of the Audit and Compliance Committee, Compensation Committee and Nominating Committee

Derek Graham is our Chief Executive Officer. He was appointed as Interim CEO in May 2022 and was confirmed as the permanent CEO in January 2023. He joined our company in July 2003 as Lead Engineer for Conferencing Cameras. In 2004, he was promoted to Engineering Operations Manager. In 2006, he was promoted to Director of Research and Development. In 2007, he was promoted to Sr. Director of Research and Development. In 2009, he was promoted to Vice President of Research and Development. In 2011, he was promoted to Sr. Vice President of Research and Development. In those prior roles, Derek was responsible for funding, staffing, and execution of parallel engineering programs that resulted in successful development of professionally installed audio and video conferencing, video streaming, wireless microphone, digital signage, and camera products. Derek is a named inventor on 13 patents. Prior to joining ClearOne, Derek held engineering and management positions at Intel Corporation in the areas of audio conferencing and telephony technologies. Mr. Graham earned a Bachelor of Science in Electrical Engineering, with highest honors, and a Master's Degree in Electrical Engineering from the Georgia Institute of Technology.

Larry R. Hendricks has served as a director of our Company since June 2003. Mr. Hendricks is a Certified Public Accountant who retired in December 2002 after serving as Vice President of Finance and General Manager of Daily Foods, Inc., a national meat processing company. During his 30-year career in accounting, he served as a self-employed CPA and worked for the international accounting firm Peat Marwick & Mitchell. Mr. Hendricks has served on the boards of eight other organizations, including Tunex International, Habitat for Humanity, Daily Foods, Skin Care International, and the National Advisory Board of the Huntsman College of Business at Utah State University. He earned a Bachelor's Degree in Accounting from Utah State University and a Master of Business Administration Degree from the University of Utah.

Lisa B. Higley was appointed a director of our Company effective July 20, 2020. Ms. Higley has been self-employed as a CPA since June 2009. Previously, she was the CFO for Daisy D's Paper Company from March 2007 until January 2009, where she managed all aspects of the company's financial and accounting responsibilities. Additionally, Ms. Higley was the CFO for Tunex International from April 2006 to March 2007 where she was accountable for all financial aspects of the corporation. Prior to that, Ms. Higley was a staff tax accountant at Wisen, Smith, Racker & Prescott LLP from February 2004 to April 2006. Ms. Higley earned her Bachelor of Science in Accounting from the University of Oregon and her MBA from Utah State University, and has been a Utah CPA since 2004. Ms. Higley is the daughter of Edward D. Bagley, our former Chairman of the Board. Mr. Edward D. Bagley beneficially owns 45% of our issued and outstanding common stock.

Eric. L Robinson has served as a director of our company since July 2015 and was named Chairman of the Board in February 2022. Mr. Robinson spent fourteen years in private practice as a corporate attorney, including eleven years as a partner in the Salt Lake City, Utah law firm of Blackburn & Stoll, LC. Mr. Robinson's law practice focused on securities, corporate and other business transactions. For the past five years, Mr. Robinson has been principally employed by MicroPower Global Limited, a company in the semiconductor business and as a private attorney. At MicroPower, Mr. Robinson has acted as General Counsel, Chief Financial Officer and director. Mr. Robinson also maintains a law practice and serves as counsel to a number of companies in the fields of regenerative medicine, transportation, commercial construction and nonprofit. Mr. Robinson previously served as chief financial officer, in-house counsel, secretary and treasurer of ActiveCare, Inc. from July 2016 until his voluntary resignation in June 2017, and subsequent to Mr. Robinson's departure, ActiveCare filed a voluntary bankruptcy petition under Chapter 11 of the U.S. Bankruptcy Code on July 15, 2018. His legal practice included working with companies in connection with public and private offerings of securities, corporate partnering, mergers and acquisitions, licensing technology transfer, contracts and construction.

He graduated from the University of Utah with honors with a B.S. degree in accounting and he subsequently passed the CPA exam (unlicensed). He graduated from Vanderbilt University with a J.D. where he graduated Order of the Coif and acted as a Managing Editor of the Law Review. Mr. Robinson has previously served as corporate and securities legal counsel to the Company and the Company's largest shareholder, E. Dallin Bagley.

Bruce Whaley was appointed a director of our Company effective April 16, 2019. Mr. Whaley has extensive experience as a stockbroker for nearly five decades. Mr. Whaley is currently a broker trading at Wilson & Davis, a regional brokerage firm based in Salt Lake City, Utah. He has been with Wilson & Davis since 1988. Mr. Whaley also holds a real estate license and works as a real estate agent for Coldwell Banker. Mr. Whaley attended the University of Utah between 1968 and 1971 and studied many subjects including business administration, accounting and finance. He did not graduate with a degree.

Narsi Narayanan has served in the roles of Vice President of Finance and Senior Vice President of Finance since July 2009. He has over three decades of professional experience in the areas of accounting, finance and taxes. Prior to joining our Company, he managed the SEC reporting, US GAAP accounting research, Sarbanes-Oxley Act ("SOX") compliance and other financial reporting functions from August 2007 through February 2009 at Solo Cup Company, a publicly-reporting international consumer products company. Prior to that, Mr. Narayanan managed the accounting and finance functions, including SEC Reporting, SOX compliance and US GAAP accounting research, from June 2004 through August 2007 at eCollege.com, a leading technology company serving private educational institutions, which was also a publicly-reporting company before being acquired by Pearson Education group. In addition to being a Chartered Accountant, Mr. Narayanan has extensive experience working in public accounting and in senior finance positions in India with a large conglomerate. He is a Certified Public Accountant with graduate degrees in accounting (University of Utah, M. Acc.) and business (University of Illinois, MBA-Finance).

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act, of 1934 as amended, requires our directors, executive officers and persons who own more than 10% of a registered class of our equity securities to file with the SEC initial reports of ownership on Form 3 and reports of changes of ownership of our equity securities on Forms 4 and 5. Officers, directors, and greater than 10% shareholders are required to furnish us with copies of all Section 16(a) reports they file. Based solely on a review of the reports furnished to us for the year ended December 31, 2022, we believe that each person who, at any time during such fiscal year was a director, officer, or beneficial owner of more than 10% of our common stock complied with all Section 16(a) filing requirements during such period.

Code of Ethics

The Board of Directors adopted a code of ethics that applies to our Board of Directors, executive officers, and employees. The Company's Code of Ethics is posted on our website at www.clearone.com.

Nomination Procedures

No changes have been made to the procedures by which our shareholders may recommend nominees to our Board of Directors.

Audit and Compliance Committee

The Company has a separate Audit and Compliance Committee and its members are Eric L. Robinson (Chairman), Larry R. Hendricks and Bruce Whaley. The Board of Directors has determined that Eric L. Robinson is an "audit committee financial expert" and each member is independent in accordance with applicable rules and regulations of NASDAQ and the SEC.

ITEM 11. EXECUTIVE COMPENSATION

EXECUTIVE COMPENSATION

The following table sets forth the compensation paid or earned by each named executive officer for the years ended December 31, 2022 and 2021.

SUMMARY COMPENSATION TABLE

Name and Principal Position	Salary	Option Awards	Non-Equity Incentive Plan Compensation	All Other Compensation	Total
Derek Graham, Chief Executive Officer[1]					
Year ended December 31, 2022	$ 221,625	$ —	$ —	$ —	221,625
Narsi Narayanan - Chief Financial Officer					
Year ended December 31, 2022	$ 230,000	$ —	$ —	$ —	$ 230,000
Year ended December 31, 2021	$ 221,625	$ —	$ —	$ 30,000	$ 251,625
Zeynep Hakimoglu - Chief Executive Officer and President[2]					
Year ended December 31, 2022	$ 164,615	$ —	$ —	$ 171,037	$ 335,652
Year ended December 31, 2021	$ 388,750	$ —	$ —	$ 30,000	$ 418,750

(1) Derek L. Graham was appointed as Interim CEO on May 24, 2022 and became permanent CEO on Jan 26, 2023.

(2) Zeynep Hakimoglu served as CEO and President till May 24, 2022, when her employment with ClearOne was terminated.

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END

The following table provides information on the holdings of stock options by the named executive officers as of December 31, 2022.

Name	Number of Securities Underlying Unexercised Options		Option Exercise Price ($)	Option Grant Date	Option Expiration Date
	Exercisable	Unexercisable			
Derek Graham	1,250	—	8.340	9-12-2014	9-12-2024
	5,000	5,000	2.500	12-14-2020	12-14-2026
Narsi Narayanan	15,000	—	8.220	8-22-2013	8-22-2023
	20,000	—	8.340	9-12-2014	9-12-2024
	25,000	—	11.960	3-11-2016	3-11-2026
	2,500	—	11.000	12-14-2016	12-14-2026
	20,000	—	9.900	6-1-2017	6-1-2027
	20,000	10,000	2.500	12-14-2020	12-14-2026

(1) One-third of the shares underlying each stock option vest on the first anniversary of the grant date and the remaining shares vest equally over a period of 24 months following the first anniversary of the grant date.

OPTION EXERCISES AND STOCK VESTED

There were no exercises of stock options by named executive officers during 2022.

DIRECTOR COMPENSATION

The following table summarizes the compensation paid by us to non-employee directors for the year ended December 31, 2022. Ms. Hakimoglu did not receive additional compensation for her service as a director.

Name	Fees Earned or Paid in Cash	Option Awards	Other Compensation	Total
Larry R. Hendricks	$ 33,600	$ —	$ —	$ 33,600
Lisa B. Higley	30,000	—	—	30,000
Eric L. Robinson	40,800	—	—	40,800
Bruce Whaley	33,600	—	—	33,600

All directors are reimbursed by the Company for their out-of-pocket travel and related expenses, if any, incurred in attending all Board of Directors and committee meetings. However, during 2022 no expenses were reimbursed to any director.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The following table sets forth certain information regarding ownership of our common stock as of March 31, 2022, except as otherwise stated, by (i) each director and nominee for director, (ii) the named executive officers, (iii) all of our named executive officers and directors as a group, and (iv) each person known to us to be the beneficial owner of more than 5% of our outstanding common stock.

	Shares Beneficially Owned				
Name of Beneficial Owner [(1)]	Currently Owned (A)	Currently Owned Percent [(2)] (B)	Shares that could be acquired within 60 days (C)	Total (D)	Percent (E)
Directors and Executive Officers:					
Derek L. Graham	3,940	0.02%	218,626	222,566	0.04%
Larry R. Hendricks	13,048	0.05%	56,666	69,714	0.28%
Lisa B. Higley [(3)]	14,501	0.06%	6,666	21,167	0.14%
Eric L. Robinson	65	—%	34,999	35,064	0.42%
Bruce Whaley	12,000	0.05%	6,666	18,666	0.07%
Narsi Narayanan	—	—%	106,666	106,666	0.08%
Total (Directors and Officers)	43,554	0.18%	430,289	473,843	1.03%
5% Shareholders:					
Edward D. Bagley	10,186,917	42.52%	1,637,799	11,481,855	45.49%
E. Bryan Bagley	1,236,630	5.52%	221,747	1,458,377	5.78%

(1) Except as otherwise indicated, each person named in the table has sole voting and investment power, subject to applicable community property law. Except as otherwise indicated, each person may be reached at our corporate offices c/o ClearOne, Inc., 5225 Wiley Post Way, Suite 500, Salt Lake City, Utah 84116.

(2) The percentages shown in Column (B) are calculated based on 23,955,767 shares of common stock outstanding on March 31, 2022. The numbers shown in Column (D) and percentages shown in Column (E) include the shares of common stock actually owned as of March 31, 2022 and the shares of common stock that the identified person or group had the right to acquire within 60 days of such date. In calculating the percentage of ownership, all shares of common stock that each identified person or group had the right to acquire within 60 days of March 31, 2022 upon the exercise of the stock options, secured convertible notes and warrants shown in Column (C) are deemed to be outstanding for the purpose of computing the percentage of the shares of common stock owned by the persons or groups listed above.

(3) This information is based upon the Form 3 filed with the SEC as of July 20, 2020. Lisa Higley, who was appointed a Director effective July 20, 2020, is the daughter of Edward D. Bagley, and each of them has previously disclaimed beneficial ownership of common stock beneficially owned by the other. The share amounts indicated for Ms. Higley do not include any shares held by Edward D. Bagley. The share amounts indicated for Ms. Higley do not include 6,546 shares owned by her spouse and 2,252,636 shares held by a trust in which she is a co-trustee.

(4) Mr. Edward D. Bagley may be deemed to own an additional 2,252,636 shares of common stock that are deemed to be owned by his wife, Carolyn Bagley, as a result of her acting as one of four co-trustees of a trust. Mr. Bagley may be deemed to own an additional 355,257 shares of common stock that Carolyn Bagley owns individually. Mr. Bagley, however, disclaims beneficial ownership of these shares that may be indirectly beneficially owned by Mr. Bagley and they are excluded from the amounts reported in the table above. Mr. Edward D. Bagley has sole voting and dispositive power over 11,481,855 shares (including the shares that may be acquired pursuant to exercise of options to purchase 34,999 shares of common stock, secured convertible notes to purchase 574,644 shares of common stock and warrants to purchase 685,295 shares of common stock) and shared voting and dispositive power over the 355,257 shares held by Mr. Edward D. Bagley's spouse. This information is based upon Schedule 13D/A and Form 4 as filed by Mr. Bagley with the SEC in September 2020 and January 2022, respectively. E. Bryan Bagley, who resigned as Director effective November 6, 2012, is the son of Edward D. Bagley, and each of them has previously disclaimed beneficial ownership of common stock beneficially owned by the other. Lisa Higley, who was appointed a Director effective July 20, 2020, is the daughter of Edward D. Bagley, and each of them has previously disclaimed beneficial ownership of common stock beneficially owned by the other. The share amounts indicated for Mr. Edward D. Bagley do not include any shares held by E. Bryan Bagley or Lisa Higley.

(5) Mr. E. Bryan Bagley has sole voting and dispositive power over 1,528,282 shares (including the shares that may be acquired pursuant to exercise of secured convertible notes to purchase 184,834 shares of common stock and warrants to purchase 106,818 shares of common stock) This information is based upon Schedule 13D/A as filed by E. Bryan Bagley with the SEC in September 2020. E. Bryan Bagley, who resigned as Director effective November 6, 2012, is the son of Edward D. Bagley, and each of them has previously disclaimed beneficial ownership of common stock beneficially owned by the other. The share amounts indicated for Mr. E. Bryan Bagley do not include any shares held by Edward D. Bagley. The share amounts indicated for Mr. E. Bryan Bagley do not include 2,252,636 shares held by a trust in which he is a co-trustee.

Equity Compensation Plan Information

The following table summarizes information, as of December 31, 2022, relating to equity compensation plans of the Company (including individual compensation arrangements) pursuant to which equity securities of the Company are authorized for issuance.

Plan Category	(a) Number of securities to be issued upon exercise of outstanding options and rights	(b) Weighted-Average Exercise Price of Outstanding Options 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 Stockholders	488,477	$6.48	976,377
Equity Compensation Plans Not Approved by Stockholders	—	—	—
Total	488,477	$6.48	976,377

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

We recognize that transactions between us and any of our directors, executives or other related persons can present potential or actual conflicts of interest and create the appearance that our decisions are based on considerations other than the best interests of our Company and shareholders. Therefore, as a general matter and in accordance with our Code of Ethics, it is our preference to avoid such transactions. Nevertheless, we recognize that there are situations where such transactions may be in, or may not be inconsistent with, the best interests of our Company. Under the terms of its charter, our Audit and Compliance Committee reviews and, if appropriate, approves or ratifies any such transactions. Pursuant to the charter, the Committee will review any transaction in which we are or will be a participant and the amount involved exceeds $120,000, and in which any of our directors or executives had, has or will have a direct or indirect material interest. After its review, the Committee will only approve or ratify those transactions that are in, or are not inconsistent with, the best interests of our Company and our shareholders, as the Committee determines in good faith. The Company’s Board of Directors adopted the Company's Related Party Transactions Policy on January 18, 2017. This policy is available on our website at http://investors.clearone.com/corporate-governance.

Related Party Transactions: Consulting Agreement with Edward D. Bagley

On June 3, 2015, the Company entered into a Consulting Agreement with Edward D. Bagley, former Chairman of the Board and greater than 10% shareholder (“Consulting Agreement”) which became effective on July 29, 2015 for an initial term of three years which was renewed in 2018 for an additional term of three years and renewed again in 2021 for an additional term of 3 years through 2024. Pursuant to the terms of the Consulting Agreement Mr. Bagley is paid a fee of $5,000 per month and is eligible to participate in our equity incentive programs and will be granted stock options commensurate with grants of stock options made to our directors. During 2022, he was paid $60,000 as consulting fees. During 2022, he did not receive any grant of stock options.

Director Independence

Our Board of Directors has determined, after considering all the relevant facts and circumstances, that Larry Hendricks, Eric Robinson and Bruce Whaley are independent directors, in accordance with the definition of “independence” under the listing standards of NASDAQ, because they have no relationship with us that would interfere with their exercise of independent judgment.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

amounts:

	2022	2021
Audit fees(1)	$ 229,111	$ 260,145
Audit-related fees(2)	—	7,653
Tax fees(3)	55,700	35,000
All other fees	—	—
Total	$ 284,811	$ 302,798

(1) Represents fees billed for professional services rendered for the audit and reviews of our financial statements filed with the SEC on Forms 10-K and 10-Q.

(2) Represents fees billed for consents provided with respect to registration statements and related amendments.

(3) Represents fees billed for tax filing, preparation, and tax advisory services.

Pre-Approval Policies and Procedures

The Audit and Compliance Committee ensures that we engage our independent registered public accounting firm to provide only audit and non-audit services that are compatible with maintaining the independence of our public accountants. The Audit and Compliance Committee approves or pre-approves all services provided by our public accountants. Permitted services include audit and audit-related services, tax services and other non-audit related services. Certain services are identified as restricted. Restricted services are those services that may not be provided by our external public accountants, whether identified in statute or determined to be incompatible with the role of an independent auditor. All fees identified in the preceding table were approved by the Audit and Compliance Committee. During 2021, the Audit and Compliance Committee reviewed all non-audit services provided by our independent registered public accounting firm and concluded that the provision of such non-audit services was compatible with maintaining the independence of the external public accountants.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

1. Financial Statements: Financial statements set forth under Part II, Item 8 of this Annual Report on Form 10-K are filed in a separate section of this Form 10-K. See the "Index to Consolidated Financial Statements".

2. Financial Statement Schedules: All schedules are omitted since they either are not required, not applicable or the information is presented in the accompanying consolidated financial statements and notes thereto.

3. Exhibits: The exhibits listed under the Index of exhibits in the next page are filed or incorporated by reference as part of this Form 10-K.

ITEM 16. FORM 10-K SUMMARY

Not applicable.

Table of Contents

INDEX TO EXHIBITS

Exhibit Number	Exhibit Description	Form	Exhibit Incorporated Herein by Reference	Filing Date
3.1	Certificate of Incorporation of ClearOne, Inc.	8-K	3.1	10/29/18
3.2	Bylaws	8-K	3.2	10/29/18
4.1	Description of Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934	10-K	4.1	03/30/20
10.1#	1997 Employee Stock Purchase Plan	S-8	4.9	10/06/06
10.2#	1998 Stock Option Plan	S-8	4.8	10/06/06
10.3#	2007 Equity Incentive Plan	S-8	4.7	01/22/08
10.4#	ClearOne, Inc. Equity Incentive Plan	S-8	4.8	01/26/16
10.5#	Amendment No. 1 to the ClearOne, Inc. Equity Incentive Plan	S-8	4.11	06/30/15
10.6#	ClearOne, Inc. Employee Stock Purchase Plan	S-8	4.3	06/30/15
10.7	Note Purchase Agreement by and among ClearOne, Inc., the guarantors a party thereto and Edward D. Bagley dated as of December 8, 2019	8-K	10.1	12/09/19
10.8	Form of Guaranty and Collateral Agreement	8-K	10.2	12/09/19
10.9	Form of Secured Convertible Note	8-K	10.3	12/09/19
10.10	Form of Securities Purchase Agreement	8-K	10.1	09/14/20
10.11	Form of Securities Purchase Agreement	8-K	10.1	09/13/21
10.12	Form of Registration Rights Agreement	8-K	10.2	09/13/21
10.13	Securities Purchase Agreement.	8-K	10.1	0104/22
10.14	Registration Rights Agreement.	8-K	10.2	01/04/22
10.15#	Confidential Separation Agreement and General Release.	8-K	10.1	08/17/22
10.16	Promissory Note dated October 28, 2022.	8-K	10.1	11/02/22
10.17*	Confidential Settlement and License Agreement.	8-K	10.1	12/09/22
14.1	Code of Ethics, approved by the Board of Directors on August 23, 2006	10-K	14.1	09/14/06
21.1†	Subsidiaries of the registrant			
23.1†	Consent of Tanner LLC, Independent Registered Public Accounting Firm			
31.1†	Section 302 Certification of Chief Executive Officer			
31.2†	Section 302 Certification of Chief Financial Officer			
32.1†	Section 906 Certification of Chief Executive Officer			
32.2†	Section 906 Certification of Chief Financial Officer			
101.INS‡	XBRL Instance Document			
101.SCH‡	XBRL Taxonomy Extension Schema			
101.CAL‡	XBRL Taxonomy Extension Calculation Linkbase			
101.DEF‡	XBRL Taxonomy Extension Definitions Linkbase			
101.LAB‡	XBRL Taxonomy Extension Label Linkbase			
101.PRE‡	XBRL Taxonomy Extension Presentation Linkbase			
104	The cover page from this Annual Report on Form 10-K formatted in Inline XBRL			

* Certain confidential portions of this exhibit have been excluded from this exhibit in accordance with Rule 24b-2 because such information is (1) not material, and (2) the Company customarily and actually treats that information as private or confidential.
† Filed herewith
‡ Information furnished herewith shall not be deemed to be "filed" for the purposes of Section 18 of the 1934 Act
#Management contract or compensatory plan or arrangement

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.

CLEARONE, INC.
Registrant

/s/ Derek L. Graham
Derek L. Graham
Chief Executive Officer
March 31, 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.

/s/ Derek L. Graham Derek L. Graham President and Chief Executive Officer (Principal Executive Officer) March 31, 2023	*/s/ Narsi Narayanan* Narsi Narayanan Chief Financial Officer (Principal Accounting and Principal Financial Officer) March 31, 2023
/s/ Eric L. Robinson Eric L. Robinson Director and Chairman of the Board March 31, 2023	*/s/ Larry R. Hendricks* Larry R. Hendricks Director March 31, 2023
/s/ Bruce Whaley Bruce Whaley Director March 31, 2023	*/s/Lisa B. Higley* Lisa B. Higley Director March 31, 2023

CLEARONE, INC.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and
Stockholders of ClearOne, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of ClearOne, Inc. and subsidiaries (collectively, the Company) as of December 31, 2022 and 2021, and the related consolidated statements of operations and comprehensive income (loss), shareholders' equity, and cash flows for each of the years in the two-year 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 aspects, the financial position of ClearOne as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board ("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 audit 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 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 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

Emphasis of Matter - Gain on Legal Settlement

As discussed more fully in Note 8 to the consolidated financial statements, the Company and another party entered into a confidential settlement and license agreement (the Agreement) on December 9, 2022. Under the terms of the Agreement, all of the litigations between the parties were dismissed with prejudice and both the Company and the other party released all claims against the other arising from or in connection with the matters that were subject to the litigations. The Company received a one-time settlement payment in early January 2023 in the amount of $55,000,000 after the dismissal of the litigations in accordance with the Agreement. The Company and the other party agreed to certain covenants not to sue. As of December 31, 2022, the Company recorded a receivable of $55,000,000 for the proceeds. During the year ended December 31, 2022, the Company recognized a gain of $33,623,000, after deducting the entire capitalized legal costs totaling $27,374,000 net of amortized costs of $5,997,000.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated 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 matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Capitalized patent defense costs
As described in Notes 3 and 8 to the consolidated financial statements, the Company was involved in litigation against a competitor related to intellectual property rights. The Company has capitalized legal expenses related to the defense of certain patents as intangible assets on the balance sheet based on the satisfaction of two conditions: (i) a determination being made that a successful defense is probable, and (ii) that the monetary benefits arising out of such a successful defense will be in excess of the costs for the defense.

We identified the capitalization of patent defense costs as a critical audit matter because evaluating the likelihood of potential outcomes of the litigation as well as determining the expected monetary benefit involves significant judgment by management. This required a high degree of auditor judgement and subjectivity in performing procedures and evaluating audit evidence related to management's assertions that a successful defense is probable and that the monetary benefits will be in excess of the costs.

Addressing this critical audit matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the financial statements. These procedures included, among others: (1) testing of legal expenses related to the litigation, (2) obtaining and evaluating a legal confirmation obtained from the Company's lead counsel in the case (3) obtaining and evaluating a legal opinion letter from another third party intellectual property law firm related to their evaluation of the likelihood of potential outcomes of the litigation based on their review of the case, (4) reviewing and evaluating management's cost analysis, (5) obtaining and evaluating an expert witness damages report and, (6) evaluating the reasonableness of management's assumptions.

Assessment of lower of cost or net realizable value of inventories
As described in Notes 1 and 4 to the consolidated financial statements, inventories totaling $11.7 million as of December 31, 2022 are stated at the lower of cost or market. The Company performs analyses to identify and estimate the net realizable value of excess or slow-moving inventories based on forecasted future product demand.

We identified the inventory valuation as a critical audit matter because of the significant balance of inventory held by the Company and because forecasting future product demand involves significant judgement by management. This required a high degree of auditor judgement, subjectivity and effort in performing procedures and evaluating audit evidence to evaluate management's assumptions related to estimating the reserve of obsolete and slow-moving inventory.

Addressing this critical audit matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the financial statements. These procedures included, among others: (1) evaluating management's process for estimating obsolete and slow moving inventory levels, (2) comparing historical sales trends and inventory consumption reports for selected products to quantities on hand in order to evaluate potential excess or obsolete inventory, (3) evaluating and discussing forecasts and expectations with management as well as assumptions regarding alternative uses, and (4) evaluating the reasonableness of management's assumptions.

/s/ TANNER LLC

Salt Lake City, Utah
March 31, 2023

We have served as the Company's auditor since October 14, 2015.

CLEARONE, INC.
CONSOLIDATED BALANCE SHEETS
(Dollars in thousands, except par value)

	December 31, 2022	December 31, 2021
ASSETS		
Current assets:		
Cash and cash equivalents	$ 984	$ 1,071
Marketable securities	—	1,790
Legal settlement receivable	55,000	—
Receivables, net of allowance for doubtful accounts of $326	3,603	4,991
Inventories, net	8,961	10,033
Income tax receivable	1,071	7,535
Prepaid expenses and other assets	7,808	4,021
Total current assets	77,427	29,441
Long-term marketable securities	—	1,220
Long-term inventories, net	2,707	3,567
Property and equipment, net	383	744
Operating lease – right of use assets, net	1,047	1,537
Intangibles, net	2,071	25,086
Other assets	115	4,597
Total assets	$ 83,750	$ 66,192
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 1,284	$ 5,388
Accrued liabilities	3,041	2,549
Deferred product revenue	63	54
Short-term debt	3,732	3,481
Total current liabilities	8,120	11,472
Long-term debt	—	1,535
Operating lease liability, net of current	492	1,026
Other long-term liabilities	1,008	655
Total liabilities	9,620	14,688
Shareholders' equity:		
Common stock, par value $0.001, 50,000,000 shares authorized, 23,955,767 and 22,410,126 shares issued and outstanding, respectively	24	22
Additional paid-in capital	74,910	72,795
Accumulated other comprehensive loss	(288)	(241)
Accumulated deficit	(516)	(21,072)
Total shareholders' equity	74,130	51,504
Total liabilities and shareholders' equity	$ 83,750	$ 66,192

See accompanying notes

CLEARONE, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (LOSS)
(Dollars in thousands, except per share amounts)

	Year ended December 31,	
	2022	2021
Revenue	$ 25,205	$ 28,967
Cost of goods sold	15,748	17,051
Gross profit	9,457	11,916
Operating expenses:		
Sales and marketing	5,517	6,736
Research and product development	4,390	5,794
General and administrative	6,772	6,881
Total operating expenses	16,679	19,411
Operating loss	(7,222)	(7,495)
Interest expense	(420)	(514)
Other income, net	35,102	32
Income (loss) before income taxes	27,460	(7,977)
Provision for (benefit from) income taxes	6,904	(283)
Net income (loss)	$ 20,556	$ (7,694)
Basic income (loss) per common share	$ 0.86	$ (0.39)
Diluted income (loss) per common share	$ 0.83	$ (0.39)
Basic weighted average shares outstanding	23,937,962	19,859,817
Diluted weighted average shares outstanding	25,189,147	19,859,817
Comprehensive income (loss):		
Net income (loss)	$ 20,556	$ (7,694)
Other comprehensive income (loss):		
Unrealized loss on available-for-sale securities, net of tax	(2)	(28)
Change in foreign currency translation adjustment	(45)	(27)
Comprehensive income (loss)	$ 20,509	$ (7,749)

See accompanying notes

CLEARONE, INC.
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY
(Dollars in thousands)

	Year ended December 31, 2022	Year ended December 31, 2021
Common stock and paid-in capital		
Balance, beginning of year	$ 72,817	$ 63,378
Issuance of common stock	2,000	9,288
Share-based compensation expense	113	136
Proceeds from employee stock purchase plan	4	15
Balance, end of year	$ 74,934	$ 72,817
Accumulated other comprehensive loss		
Balance, beginning of year	$ (241)	$ (186)
Unrealized loss on available-for-sale securities, net of tax	(2)	(28)
Foreign currency translation adjustment	(45)	(27)
Balance, end of year	$ (288)	$ (241)
Accumulated deficit		
Balance, beginning of year	$ (21,072)	$ (13,378)
Net income (loss)	20,556	(7,694)
Balance, end of year	$ (516)	$ (21,072)
Total shareholders' equity	$ 74,130	$ 51,504

See accompanying notes

CLEARONE, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year ended December 31,	
	2022	2021
Cash flows from operating activities:		
Net income (loss)	$ 20,556	$ (7,694)
Adjustments to reconcile net income (loss) to net cash used in operating activities:		
Depreciation and amortization expense	2,970	2,867
Amortization of right of use of assets	597	611
Share-based compensation expense	113	136
Change of inventory to net realizable value	120	850
Loss on disposal of assets	146	—
Gain recognized on Paycheck Protection Plan Loan forgiveness	(1,528)	—
Gain on legal settlement proceeds, net of capitalized legal costs less amortization	(33,623)	—
Changes in operating assets and liabilities:		
Receivables	1,388	203
Inventories	1,812	603
Prepaid expenses and other assets	684	(2,485)
Accounts payable	(4,104)	1,438
Accrued liabilities	485	166
Income taxes receivable	6,466	(366)
Deferred product revenue	9	(69)
Operating lease liabilities	(623)	(631)
Other long-term liabilities	353	(23)
Net cash used in operating activities	(4,179)	(4,394)
Cash flows from investing activities:		
Capitalized patent defense costs	(737)	(7,836)
Purchase of property and equipment	(51)	(221)
Purchase of intangibles	(137)	(290)
Proceeds from maturities and sales of marketable securities	3,010	4,004
Purchase of marketable securities	—	(4,164)
Net cash provided by (used in) investing activities	2,085	(8,507)
Cash flows from financing activities:		
Gross proceeds from issuance of common stock and warrants	—	10,000
Costs of issuance of common stock and warrants	—	(712)
Proceeds from issuance of short-term notes	2,000	2,000
Proceeds from Paycheck Protection Program loan	767	—
Principal payments of long-term debt	(720)	(1,098)
Proceeds from equity-based compensation programs	4	15
Net cash provided by financing activities	2,051	10,205
Effect of exchange rate changes on cash and cash equivalents	(44)	(36)
Net decrease in cash and cash equivalents	(87)	(2,732)
Cash and cash equivalents at the beginning of the year	1,071	3,803
Cash and cash equivalents at the end of the year	$ 984	$ 1,071

CLEARONE, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year ended December 31,	
	2022	2021
Supplemental disclosure of cash flow information:		
Cash paid for income taxes	$ 88	$ 107
Cash paid for interest	226	296
Supplemental disclosure of non-cash investing and financing activities		
Right-of-use assets obtained in exchange for lease obligations	107	212
Issue of common stock in consideration of cancellation of debt	2,000	—

See accompanying notes

CLEARONE, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Dollars in thousands, except share and per share amounts)

1. Business Description, Basis of Presentation and Significant Accounting Policies

Business Description:

ClearOne, Inc., together with its subsidiaries (collectively, “ClearOne” or the “Company”), is a global market leader enabling conferencing, collaboration, and network streaming solutions. The performance and simplicity of our advanced, comprehensive solutions offer unprecedented levels of functionality, reliability and scalability.

Basis of Presentation:

Fiscal Year – This report on Form 10-K includes consolidated balance sheets for the years ended December 31, 2022 and 2021 and the related consolidated statements of operations and comprehensive income (loss), shareholders' equity, and cash flows for each of the years ended December 31, 2022 and 2021.

Consolidation – These consolidated financial statements include the financial statements of ClearOne, Inc. and its wholly owned subsidiaries. All inter-Company accounts and transactions have been eliminated in consolidation.

Use of Estimates – The preparation of 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 and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of sales and expenses during the reporting periods. Key estimates in the accompanying consolidated financial statements include, among others, revenue recognition, allowances for doubtful accounts receivable and product returns, provisions for obsolete inventory, potential impairment of long-lived assets, and deferred income tax asset valuation allowances. Actual results could differ materially from these estimates.

Foreign Currency Translation – We are exposed to foreign currency exchange risk through our foreign subsidiaries. Other than our subsidiaries in India and Spain, all other foreign subsidiaries are U.S. dollar functional, for which gains and losses arising from remeasurement are included in earnings. Our Spanish subsidiary is Euro functional, for which gains and losses arising from translation are included in accumulated other comprehensive income or loss. Our Indian subsidiary is Indian Rupee functional, for which gains and losses arising from translation are included in accumulated other comprehensive income or loss. We translate and remeasure foreign assets and liabilities at exchange rates in effect at the balance sheet dates. We translate revenue and expenses using average rates during the year.

Concentration Risk – We depend on an outsourced manufacturing strategy for our products. We outsource the manufacture of all of our products to third party manufacturers located in Asia. If any of these manufacturers experience difficulties in obtaining sufficient supplies of components, component prices significantly exceeding the anticipated costs, an interruption in their operations, or otherwise suffer capacity constraints, we would experience a delay in production and shipping of these products, which would have a negative impact on our revenues. Should there be any disruption in services due to natural disaster, economic or political difficulties, transportation restrictions, acts of terror, quarantine or other restrictions associated with infectious diseases, or other similar events, or any other reason, such disruption may have a material adverse effect on our business. Operating in the international environment exposes us to certain inherent risks, including unexpected changes in regulatory requirements and tariffs, and potentially adverse tax consequences, which could materially affect our results of operations. Currently, we have no second source of manufacturing for most of our products.

Significant Accounting Policies:

Cash Equivalents – The Company considers all highly-liquid investments with a maturity of three months or less, when purchased, to be cash equivalents. The Company places its temporary cash investments with high-quality financial institutions. At times, such investments may be in excess of the Federal Deposit Insurance Corporation insurance limits. As of December 31, 2022, there was one cash account that exceeded federally insured limits, in the amount of $564.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Dollars in thousands, except share and per share amounts)

Marketable Securities - The Company has classified its marketable securities as available-for-sale securities. These debt securities are carried at estimated fair value with unrealized holding gains and losses included in other comprehensive income (loss) in shareholders' equity until realized. Gains and losses on marketable security transactions are reported on the specific-identification method. Dividend and interest income are recognized when earned.

A decline in the market value of any available-for-sale security below cost that is deemed other than temporary results in a charge to earnings and establishes a new cost basis for the security. Losses are charged against "Other income" when a decline in fair value is determined to be other than temporary. We review several factors to determine whether a loss is other than temporary. These factors include, but are not limited to: (i) the extent to which the fair value is less than cost and the cause for the fair value decline, (ii) the financial condition and near term prospects of the issuer, (iii) the length of time a security is in an unrealized loss position and (iv) our ability to hold the security for a period of time sufficient to allow for any anticipated recovery in fair value. There were no other-than-temporary impairments recognized during the years ended December 31, 2022 and 2021.

Accounts Receivable – Accounts receivable are recorded at the invoiced amount, net of expected returns and allowance for doubtful accounts. Generally, credit is granted to customers on a short-term basis without requiring collateral, and as such, these accounts receivable, do not bear interest, although a finance charge may be applied to such receivables that are past due. The Company extends credit to customers who it believes have the financial strength to pay. The Company has in place credit policies and procedures, an approval process for sales returns and credit memos, and processes for managing and monitoring channel inventory levels.

The allowance for doubtful accounts is the Company's best estimate of the amount of probable credit losses in the Company's existing accounts receivable. Management regularly analyzes accounts receivable including current aging, historical write-off experience, customer concentrations, customer creditworthiness, and current economic trends when evaluating the adequacy of the allowance for doubtful accounts. We review customer accounts quarterly by first assessing accounts with aging over a specific duration and balance over a specific amount. We review all other balances on a pooled basis based on past collection experience. Accounts identified in our customer-level review as exceeding certain thresholds are assessed for potential allowance adjustment if we conclude the financial condition of that customer has deteriorated, adversely affecting their ability to make payments. Delinquent account balances are written off if the Company determines that the likelihood of collection is not probable. If the assumptions that are used to determine the allowance for doubtful accounts change, the Company may have to provide for a greater level of expense in future periods or reverse amounts provided in prior periods.

The Company's allowance for doubtful accounts activity for the years ended December 31, 2022 and 2021 is as follows:

	Year Ended December 31,	
	2022	2021
Balance at beginning of the year	$ 326	$ 506
Allowance increase (decrease)	—	(180)
Write offs, net of recoveries	—	—
Balance at end of the year	$ 326	$ 326

Inventories – Inventories are valued at the lower of cost or market, with cost computed on a first-in, first-out ("FIFO") basis. In addition to the price of the product purchased, the cost of inventory includes the Company's internal manufacturing costs, including warehousing, engineering, material purchasing, quality and product planning expenses and applicable overhead, not in excess of estimated realizable value. Consideration is given to obsolescence, excessive levels, deterioration, direct selling expenses, and other factors in evaluating net realizable value.

The inventory also includes advance replacement units (valued at cost) provided by the Company to end-users to service defective products under warranty. The value of advance replacement units included in the inventory was $193 and $130, as of December 31, 2022 and 2021, respectively.

The inventory consists of current inventory of $8,961 and long-term inventory of $2,707. Long term inventory represents inventory held in excess of our current (next 12 months) requirements based on our recent sales and forecasted level of sales.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Dollars in thousands, except share and per share amounts)

Property and Equipment – Property and equipment are stated at cost less accumulated depreciation and amortization. Expenditures that materially increase values or capacities or extend useful lives of property and equipment are capitalized. Routine maintenance, repairs, and renewal costs are expensed as incurred. Gains or losses from the sale, trade-in, or retirement of property and equipment are recorded in current operations and the related book value of the property is removed from property and equipment accounts and the related accumulated depreciation and amortization accounts. Estimated useful lives are generally two to ten years. Depreciation and amortization are calculated over the estimated useful lives of the respective assets using the straight-line method. Leasehold improvement amortization is computed using the straight-line method over the shorter of the lease term or the estimated useful life of the related assets.

Intangible Assets – Intangible assets are amortized over their useful lives unless these lives are determined to be indefinite. Intangible assets are carried at cost, less accumulated amortization. Amortization is computed over the estimated useful lives of the respective assets, which are generally three to ten years. Intangible assets acquired in a purchase business combination and determined to have an indefinite useful life are not amortized.

Impairment of Long-Lived Assets - Long-lived assets, such as property, equipment, and definite-lived intangible assets subject to depreciation and amortization, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset or asset group to estimated future undiscounted net cash flows of the related asset or group of assets over their remaining lives. If the carrying amount of an asset exceeds its estimated future undiscounted cash flows, an impairment charge is recognized for the amount by which the carrying amount exceeds the estimated fair value of the asset. Impairment of long-lived assets is assessed at the lowest levels for which there are identifiable cash flows that are independent of other groups of assets. The impairment of long-lived assets requires judgments and estimates. If circumstances change, such estimates could also change. Assets held for sale are reported at the lower of the carrying amount or fair value, less the estimated costs to sell.

Leases: We determine if an arrangement is a lease at inception. Operating leases are included in operating lease - right of use (“ROU”) assets, accrued liabilities, and operating lease liability in our consolidated balance sheets. As of adoption of ASC 842 and as of December 31, 2022 and December 31, 2021, the Company was not party to finance lease arrangements. ROU assets represent our right to use an underlying asset for the lease term and operating lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease ROU assets and operating lease liabilities are recognized at the commencement date based on the present value of lease payments over the lease term. As most of our leases do not provide an implicit rate, we use our incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments. We use the implicit rate when readily determinable. The operating lease ROU asset also includes any lease payments made and excludes lease incentives. Our lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. Lease expense is recognized on a straight-line basis over the lease term. Under the available practical expedient, we account for the lease and non-lease components as a single lease component.

Revenue Recognition Policy: The Company generates revenue from sales of its audio and video conferencing equipment to distributors, system integrators and value-added resellers. The Company also generates revenue, to a much lesser extent, from sale of software and licenses to distributors, system integrators, value-added resellers and end-users. The Company recognizes revenue when it satisfies a performance obligation in an amount reflecting the consideration to which it expects to be entitled. For sales agreements, the Company has identified the promise to transfer products, each of which are distinct, to be the performance obligation. The Company applies a five-step approach in determining the amount and timing of revenue to be recognized: (1) identifying the contract with a customer, (2) identifying the performance obligations in the contract, (3) determining the transaction price, (4) allocating the transaction price to the performance obligations in the contract and (5) recognizing revenue when the performance obligation is satisfied. Substantially all of the Company’s revenue is recognized at the time control of the products transfers to the customer.

Sales agreements with customers are renewable periodically and contain terms and conditions with respect to payment, delivery, warranty and supply, but typically do not require mandatory purchase commitments. In the absence of a sales agreement, the Company’s standard terms and conditions at the time of acceptance of purchase orders apply. The Company considers the customer purchase orders, governed by sales agreements or the Company’s standard terms and conditions, to be the contract with the customer. The Company evaluates certain factors including the customer’s ability to pay (or credit risk).

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Dollars in thousands, except share and per share amounts)

In determining the transaction price, the Company evaluates whether the price is subject to refund or adjustment to determine the net consideration to which the Company expects to be entitled. Sales to distributors, are typically made pursuant to agreements that provide return rights with respect to discontinued or slow-moving products, referred to as stock rotation. Sales to distributors can also be subject to price adjustment on certain products, primarily for distributors with drop-shipping rights. Although payment terms vary, most distributor agreements require payment within 45 days of invoicing.

The Company recognizes revenue when it satisfies a performance obligation. The Company recognizes revenue from sales agreements upon transferring control of a product to the customer. This typically occurs when products are shipped or delivered, depending on the delivery terms, or when products that are consigned at customer locations are sold to dealers or end users. Revenue recognized during the twelve months ended December 31, 2022 for equipment sales was $25,104, and for software, licenses, etc. was $101. Sales returns and allowances are estimated based on historical experience. Provisions for discounts and rebates to customers, estimated returns and allowances, ship and credit claims and other adjustments are provided for in the same period the related revenues are recognized, and are netted against revenues. For returns, the Company recognizes a related asset for the right to recover returned products with a corresponding reduction to cost of goods sold. The Company reviews warranty and related claims activity and records provisions, as necessary.

Frequently, the Company receives orders with multiple delivery dates that may extend across reporting periods. Since each delivery constitutes a performance obligation, the Company allocates the transaction price of the contract to each performance obligation based on the stand-alone selling price of the products. The Company invoices the customer for each delivery upon shipment and recognizes revenues in accordance with delivery terms. Although payment terms vary, distributors typically pay within 45 days of invoicing and dealers pay within 30 days of invoicing. As scheduled delivery dates are within one year, revenue allocated to future shipments of partially completed contracts are not disclosed.

The Company has elected to record freight and handling costs associated with outbound freight after control over a product has transferred to a customer as a fulfillment cost and include it in cost of revenues. Taxes assessed by government authorities on revenue-producing transactions, including value-added and excise taxes, are presented on a net basis (excluded from revenues) in the consolidated statements of operations and comprehensive income (loss).

The details of deferred revenue and associated cost of goods sold and gross profit are as follows:

	As of December 31,	
	2022	**2021**
Deferred revenue	$ 63	$ 54
Deferred cost of goods sold	—	—
Deferred gross profit	$ 63	$ 54

The Company offers rebates and market development funds to certain of its distributors, dealers/resellers, and end-users based upon the volume of product purchased by them. The Company records rebates as a reduction of revenue in accordance with GAAP.

The Company provides, at its discretion, advance replacement units to end-users on defective units of certain products under warranty. Since the purpose of these units is not revenue generating, the Company tracks the units due from the end-user, until the defective unit has been returned. Any amount due from the customer upon failure to return the products is accounted as receivable only after establishing customer's failure to return the products. The inventory due from the customer is accounted at cost or market value whichever is lower.

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The following table disaggregates the Company's revenue into primary product groups:

	Year Ended December 31,	
	2022	2021
Audio Conferencing	$ 11,829	$ 11,568
Microphones	9,824	10,963
Video products	3,552	6,436
	$ 25,205	$ 28,967

The following table disaggregates the Company's revenue into major regions:

	Year Ended December 31,	
	2022	2021
North and South America	$ 12,297	$ 14,042
Asia (including Middle East) and Australia	7,828	8,197
Europe and Africa	5,080	6,728
	$ 25,205	$ 28,967

Warranty Costs – The Company accrues for warranty costs based on estimated warranty return rates and estimated costs to repair. These reserve costs are classified as accrued liabilities on the consolidated balance sheets. Factors that affect the Company's warranty liability include the number of units sold, historical and anticipated rates of warranty returns, and repair cost. The Company reviews the adequacy of its recorded warranty accrual on a quarterly basis.

The details of changes in the Company's warranty accrual are as follows:

	Year Ended December 31,	
	2022	2021
Balance at the beginning of year	$ 194	$ 194
Accruals/additions	—	—
Usage/claims	—	—
Balance at end of year	$ 194	$ 194

Advertising – The Company expenses advertising costs as incurred. Advertising costs consist of trade shows, magazine advertisements, and other forms of media. Advertising expenses for the years ended December 31, 2022 and 2021 totaled $572 and $508, respectively, and are included in sales and marketing on the consolidated statements of operations and comprehensive income (loss).

Income Taxes – The Company uses the asset and liability method of accounting for income taxes. Under the asset and liability method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, and operating loss and tax credit carry-forwards. These temporary differences will result in deductible or taxable amounts in future years when the reported amounts of the assets or liabilities are recovered or settled. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance is provided when it is more likely than not that some or all of the deferred tax assets may not be realized. On a quarterly basis, the Company tests the value of deferred tax assets for impairment at the taxpaying-component level within each tax jurisdiction. Significant judgment and estimates are required in determining whether valuation allowances should be established as well as the amount of such allowances.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
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The valuation allowance is based on our estimates of future taxable income and the period over which we expect the deferred tax assets to be recovered. Our assessment of future taxable income is based on historical experience and current and anticipated market and economic conditions and trends. In 2018, as a result of negative evidence, principally three years of cumulative pre-tax operating losses, we concluded that it was more likely than not that net operating losses, tax credits and other deferred tax assets were not realizable and therefore, we recorded a full valuation allowance against those net deferred tax assets. We continue to record full valuation against our net deferred tax assets. Adjustments to the valuation allowance increase or decrease the Company's income tax provision or benefit.

As of December 31, 2022 the Company had no net deferred tax assets due to valuation allowances recorded to account for the consecutive quarters with losses before taxes.

Recent changes: There were no changes that had a material impact on the Company's consolidated financial position, results of operations or cash flows.

Earnings Per Share – The following table sets forth the computation of basic and diluted loss per common share:

	Year Ended December 31,	
	2022	**2021**
Numerator:		
Net income (loss)	$ 20,556	$ (7,694)
Interest adjustment under if-converted method	285	—
	20,841	(7,694)
Denominator:		
Basic weighted average shares	23,937,962	19,859,817
Dilutive common stock equivalents using if-converted method	909,953	—
Diluted weighted average shares	25,189,147	19,859,817
Basic income (loss) per common share:	$ 0.86	$ (0.39)
Diluted income (loss) per common share:	$ 0.83	$ (0.39)
Weighted average options, warrants and convertible portion of senior convertible notes outstanding	6,788,671	4,654,601
Anti-dilutive options, warrants and convertible portion of senior convertible notes not included in the computation	5,510,600	4,654,601

Share-Based Payment – We estimate the fair value of stock options using the Black-Scholes option-pricing model, which requires certain estimates, including an expected forfeiture rate and expected term of options granted. We also make decisions regarding the method of calculating expected volatilities and the risk-free interest rate used in the option-pricing model. The resulting calculated fair value of stock options is recognized as compensation expense over the requisite service period, which is generally the vesting period. When there are changes to the assumptions used in the option-pricing model, including fluctuations in the market price of our common stock, there will be variations in the calculated fair value of our future stock option awards, which results in variation in the compensation cost recognized.

Other recent accounting pronouncements: The Company has determined that other recently issued accounting standards will not have a material impact on its consolidated financial position, results of operations or cash flows.

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Liquidity:

As of December 31, 2022, cash and cash equivalents were approximately $984 compared to $1,071 as of December 31, 2021. Our working capital was $69,307 as of December 31, 2022 compared to $17,969 as of December 31, 2021. Net cash used in operating activities was $4,179 for the twelve months ended December 31, 2022, a decrease of cash used of $215 from $4,394 of cash used in operating activities in the twelve months ended December 31, 2021.

In order to maintain liquidity, the Company has been actively engaged in preserving cash by implementing company-wide cost reduction measures and raising additional capital. The company raised additional capital in 2019 by issuing senior convertible notes, in 2020 by borrowing through the CARES Act Paycheck Protection Program and issuing common stock and warrants and in 2021 by issuing short-term notes and issuing common stock and warrants. In January 2022, the Company issued $2,000 in common stock as consideration for the cancellation and termination of the short-term notes. In October 2022, the Company issued short term notes to raise $2,000. In addition, the Company has been generating additional cash as our inventory levels are brought down to historical levels.

The Company also believes that the Company's core strategies of product innovation and prudent cost management will bring the company back to profitability in the future. The Company believes, although there can be no assurance, that all of these measures and effective management of working capital, along with the current cash balance after the receipt of proceeds from legal settlement, will provide the liquidity needed to meet our operating needs through at least March 31, 2024.

2. Marketable Securities

The Company has classified its marketable securities as available-for-sale securities. These debt securities are carried at estimated fair value with unrealized holding gains and losses included in accumulated other comprehensive income (loss) in shareholders' equity until realized. Gains and losses on marketable security transactions are reported on the specific-identification method. Dividend and interest income are recognized when earned.

The amortized cost, gross unrealized holding gains, gross unrealized holding losses, and fair value for available-for-sale securities by major security type and class of securities at December 31, 2021 were as follows:

	Amortized cost	Gross unrealized holding gains	Gross unrealized holding losses	Estimated fair value
December 31, 2021				
Available-for-sale securities:				
Corporate bonds and notes	$ 1,434	$ 8	$ (2)	$ 1,440
Municipal bonds	1,573	—	(3)	1,570
Total available-for-sale securities	$ 3,007	$ 8	$ (5)	$ 3,010

There were no available-for-sale securities as of December 31, 2022.

(Dollars in thousands, except share and per share amounts)

3. Intangible Assets

Intangible assets as of December 31, 2022 and 2021 consisted of the following:

	Estimated useful lives (in years)			As of December 31, 2022	2021
Tradename	5	to	7	$ 555	$ 555
Patents and technological know-how	10	to	20	7,053	33,553
Proprietary software	3	to	15	2,981	2,981
Other	3	to	5	323	323
Total intangible assets, gross				10,912	37,412
Accumulated amortization				(8,841)	(12,326)
Total intangible assets, net				$ 2,071	$ 25,086

Patents and technological know-how as of December 31, 2021 include capitalized legal expenses, net of amortization of $22,637 related to our defense of patents from infringement by our competitors. Legal expenses were capitalized upon satisfaction of two conditions: (a) a determination being made that a successful defense of this litigation is probable, and (b) that the monetary benefits arising out of such successful defense will be in excess of the costs for the defense. The Company capitalized $737 and $7,836 of litigation expenses related to this matter during the twelve months ended December 31, 2022 and 2021, respectively. A gain of $33,623 was recognized and included under other income after deducting the entire capitalized legal costs amounting to $27,374 net of amortized costs of $5,997 from the one-time legal settlement amount of $55,000, which is included in the balance sheet under legal settlement receivable as of December 31, 2022. Please refer to Note 8 - Commitments and Contingencies for additional information.

During the years ended December 31, 2022 and 2021, amortization of these intangible assets were$2,512 and $2,288 respectively.

The estimated future amortization expense of intangible assets is as follows:

Years ending December 31,	
2022	$ 512
2023	249
2024	188
2025	187
2026	57
Thereafter	878
Total	$ 2,071

(Dollars in thousands, except share and per share amounts)

4. Inventories

Inventories, net of reserves, consisted of the following:

	As of December 31, 2022	As of December 31, 2021
Current:		
Raw materials	$ 4,499	$ 4,085
Finished goods	4,462	5,948
Total	$ 8,961	$ 10,033
Long-term:		
Raw materials	$ 1,068	$ 1,980
Finished goods	1,639	1,587
Total	$ 2,707	$ 3,567

Long-term inventory represents inventory held in excess of our current (next 12 months) requirements based on our recent sales and forecasted level of sales. We have developed programs to reduce the inventory to normal operating levels in the near future. We expect to sell the above inventory, net of reserves, at or above the stated cost and believe that no loss will be incurred on its sale.

The losses incurred on valuation of inventory at the lower of cost or market value and write-off of obsolete inventory amounted to $120 and $850 during the years ended December 31, 2022 and 2021, respectively.

5. Property and Equipment

Major classifications of property and equipment and estimated useful lives were as follows:

	Estimated useful lives in years	As of December 31, 2022	As of December 31, 2021
Office furniture and equipment	3 to 10	$ 66	$ 5,410
Leasehold improvements	2 to 7	121	1,610
Vehicles	5 to 10	41	206
Manufacturing and test equipment	2 to 10	1,146	2,846
		1,374	10,072
Accumulated depreciation and amortization		(991)	(9,328)
Property and equipment, net		$ 383	$ 744

Depreciation expense on property and equipment for the years ended December 31, 2022 and 2021 was $263 and $378, respectively.

(Dollars in thousands, except share and per share amounts)

6. Leases

Rent expense is recognized on a straight-line basis over the period of the lease taking into account future rent escalation and holiday periods.

Rent expense for the years ended December 31, 2022 and 2021 was as follows:

	Year ended December 31, 2022	Year ended December 31, 2021
Rent expense	$ 684	$ 719

We occupy a 1,350 square-foot facility in Gainesville, Florida under the terms of an operating lease that expires in February 2028. The Gainesville facility is used primarily to support our research and development activities.

We occupy a21,443square-foot facility in Salt Lake City, Utah under the terms of an operating lease, which has been amended in February 2023 to expire in February 2028. Under the terms of this amendment, we will reduce our space to approximately 9,402 square feet. The facility supports our principal administrative, sales, marketing, customer support, and research and product development activities.

We occupy a6,175square-foot facility in Chennai, India under the terms of an operating lease expiring in August 2023. This facility supportsour administrative, marketing, customer support, and research and product development activities.

We occupy a40,000square-foot warehouse in Salt Lake City, Utah under the terms of an operating lease expiring in April 2025, which serves as our primary inventory fulfillment center.

Supplemental cash flow information related to leases was as follows:

	Year ended December 31, 2022	Year ended December 31, 2021
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	$ 680	$ 685
Right-of-use assets obtained in exchange for lease obligations:		
Operating leases	$ 107	$ 212

Supplemental balance sheet information related to leases was as follows:

	December 31, 2022	December 31, 2021
Operating lease right-of-use assets	$ 1,047	$ 1,537
Current portion of operating lease liabilities, included in accrued liabilities	$ 641	$ 623
Operating lease liabilities, net of current portion	492	1,026
Total operating lease liabilities	$ 1,133	$ 1,649
Weighted average remaining lease term for operating leases (in years)	2.12	2.64
Weighted average discount rate for operating leases	5.93%	5.87%

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The following represents maturities of operating lease liabilities as of December 31, 2022:

Years ending December 31,		
2023	$	691
2024		367
2025		94
2026		26
2027		26
Thereafter		4
Total lease payments		1,208
Less: Imputed interest		(75)
Total	$	1,133

7. Accrued Liabilities

Accrued liabilities consist of the following:

	As of December 31,			
	2022		**2021**	
Accrued salaries and other compensation	$	1,148	$	733
Sales and marketing programs and customer credit balances		605		869
Product warranty		194		194
Current portion of operating lease liabilities		641		623
Other accrued liabilities		453		130
Total	$	3,041	$	2,549

8. Commitments and Contingencies

We establish contingent liabilities when a particular contingency is both probable and estimable. The Company is not aware of any pending claims or assessments, other than as described below, which may have a material adverse impact on the Company's financial position or results of operations.

Outsource Manufacturers. We have manufacturing agreements with electronics manufacturing service ("EMS") providers related to the outsourced manufacturing of our products. Certain manufacturing agreements establish annual volume commitments. We are also obligated to repurchase Company-forecasted but unused materials. The Company has non-cancellable, non-returnable, and long-lead time commitments with its EMS providers and certain suppliers for inventory components that will be used in production. The Company's purchase commitments under such agreements is approximately $2,035 as of December 31, 2022.

Uncertain Tax Positions. As further discussed in Note 13 - Income Taxes, we had $962 of uncertain tax positions as of December 31, 2022. Due to the inherent uncertainty of the underlying tax positions, it is not possible to forecast the payment of this liability to any particular year.

Legal Proceedings.

Intellectual Property Litigation

The Company has been involved in several litigation proceedings (collectively, the "Litigations") against Shure Incorporated ("Shure") as more fully described in the Part I, Item 3 of the Company's annual report on Form 10-K for the year ended December 31, 2021, as supplemented in Part II, Item 1 of the Company's quarterly report on Form 10-Q for the quarter ended September 30, 2022.

On December 9, 2022, the Company and Shure entered into a confidential settlement and license agreement (the "Agreement"). Under the terms of the Agreement:

- All of the Litigations between the parties were dismissed with prejudice and each of the Company and Shure released all claims against the other arising from or in connection with the matters that were subject to the Litigations;
- Shure made a one-time settlement payment to the Company in the amount of $55,000 within five days after the dismissal of the Litigations in accordance with the Agreement in January 2023; and
- The Company and Shure agreed to certain patent licenses and covenants not to sue.

The Company capitalized $737 and $7,836 of litigation expenses related to this matter during the twelve months ended December 31, 2022 and 2021, respectively.

A gain of $33,623 was recognized and included under other income after deducting the entire capitalized legal costs amounting to $27,374 net of amortized costs of $5,997 from the one-time legal settlement amount of $55,000, which is included in the balance sheet under legal settlement receivable as of December 31, 2022.

In addition, the Company is also involved from time to time in various claims and legal proceedings which arise in the normal course of our business. Such matters are subject to many uncertainties and outcomes that are not predictable. However, based on the information available to us, we do not believe any such other proceedings will have a material adverse effect on our business, results of operations, financial position, or liquidity.

Conclusion

We believe there are no other items that will have a material adverse impact on the Company's financial position or results of operations. Legal proceedings are subject to all of the risks and uncertainties of legal proceedings and there can be no assurance as to the probable result of any legal proceedings.

The Company believes it has adequately accrued for the aforementioned contingent liabilities. If adverse outcomes were to occur, our financial position, results of operations and cash flows could be negatively affected materially for the period in which the adverse outcomes are known.

(Dollars in thousands, except share and per share amounts)

9. Debt

Senior Convertible Notes and Warrants

On December 17, 2019, the Company completed the issuance and sale of $3,000 aggregate principal amount of secured convertible notes of the Company (the "Notes") and warrants (the "Warrants") to purchase 340,909 shares of common stock, par value $0.001 per share of the Company (the "Common Stock"), in a private placement transaction. The Notes and Warrants were issued and sold to Edward D. Bagley, an affiliate of the Company, on the terms and conditions of a Note Purchase Agreement dated December 8, 2019 between the Company, certain subsidiary guarantors of the Company, and Mr. Bagley. Mr. Bagley is an affiliate of the Company and was the beneficial owner of approximately 46.6% of the Company's issued and outstanding shares of Common Stock.

The Notes mature on December 17, 2023 (the "Maturity Date") and accrue interest at a variable rate adjusted on a quarterly basis and equal to two and one-half percent (2.5%) over the greater of (x) five and one-quarter percent (5.25%) and (y) the Prime Rate as published in the Wall Street Journal (New York edition) as of the beginning of such calendar quarter. The Notes may be converted into shares of the Company's Common Stock at any time at the election of Mr. Bagley at an initial conversion price of $2.11 per share (the "Conversion Price"), or 120% of the closing price of the Common Stock on December 6, 2019 as reported on the Nasdaq Capital Market. Also, the Company can cause a mandatory conversion of the Notes if the volume weighted average closing price of the Common Stock over 90 consecutive trading days exceeds 200% of the Conversion Price. In addition, the Notes may be redeemed by the Company for cash at any time after December 17, 2020 upon payment of the outstanding principal balance of the Notes and any unpaid and accrued interest. The Company also is required to redeem the Notes upon the occurrence of a change in control of the Company.

The Warrants have an initial exercise price equal to $1.76, the closing price of the Common Stock on December 6, 2019 as reported on the Nasdaq Capital Market, and are exercisable until December 17, 2026. The Warrants must be exercised for cash, unless at the time of exercise there is not a then effective registration statement for the resale of the shares of Common Stock issuable upon exercise of the Warrants, in which case the Warrants may be exercised via a cashless exercise feature that provides for net settlement of the shares of Common Stock issuable upon exercise.

Concurrent with the issuance of the Notes and Warrants pursuant to the Note Purchase Agreement, the Company, the Guarantors and Mr. Bagley entered into a Guaranty and Collateral Agreement (the "Collateral Agreement") pursuant to which the Company and the Guarantors granted Mr. Bagley a first priority lien interest in all of the Company's assets as security for the Company's performance of its obligations under the Notes and Warrants.

The net proceeds after original issue discount and issuance costs of $346 were approximately $2,654. The Company expects to use the proceeds from the sale of the Notes and Warrants for general corporate purposes and working capital.

In accounting for the issuance of the Notes, the Company separated Notes and Warrants into liability and equity components. The carrying amount of Warrants, being an equity component, was first calculated using Black-Scholes method with the following assumptions:

Risk-free interest rate	1.82%
Expected life of Warrants (years)	7
Expected price volatility	49.94%
Expected dividend yield	0%

The carrying amount of the Notes was then determined by deducting the fair value of the Warrants from the principal amount of the Notes. The carrying amount of the Notes was further separated into equity and liability components after separating the value of the conversion feature into an equity component and leaving the remaining value as liability. The equity component is not remeasured while the Notes and Warrants continue to meet the conditions for equity classification for equity components.

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The original issue discount and issuance costs are netted against the liability. The following table represents the carrying value of Notes and Warrants:

	December 31, 2022	December 31, 2021
Liability component:		
Principal	$ 1,920	$ 2,640
Less: debt discount and issuance costs, net of amortization	(188)	(385)
Net carrying amount	$ 1,732	$ 2,255
Equity component[1]:		
Warrants	$ 318	$ 318
Conversion feature	122	122
Net carrying amount	$ 440	$ 440
Current portion of liability component included under short-term debt	$ 1,920	$ 720
Long-term portion of liability component included under long-term debt	—	1,920
Liability component total	$ 1,920	$ 2,640

(1) Recorded on the consolidated balance sheets as additional paid-in capital.

Debt discount and issuance costs are amortized over the life of the note to interest expense using the effective interest method. During the twelve months December 31, 2022 amortization of debt discount and issuance costs were $197 and $196 respectively. The following table represents schedule of maturities of principal amount contained in the Notes as of December 31, 2022:

Year ending December 31,	Principal Amount Maturing
2023	1,920
Net carrying amount	$ 1,920

2021 Short-term Bridge Loan

On July 2, 2021, the Company obtained a bridge loan in the principal amount of $2,000 from Edward D. Bagley (the "2021 Bridge Loan"), an affiliate of the Company. The Bridge Loan is evidenced by a promissory note dated July 2, 2021 (the "Note") issued by the Company to Mr. Bagley.The Note bears interests at a rate of 8.0% per annum, matures on the earlier to occur of (i) October 1, 2021 or (ii) within two business days of the Company's receipt of its expected U.S. federal income tax refund, and contains other customary covenants and events of default. On September 11, 2021, the Company amended and restated the terms of the 2021 Bridge Loan to extend the latest maturity date from October 1, 2021 to January 3, 2022. All other terms and conditions of the Bridge Loan remained the same. This Bridge Loan of $2,000 is included under short-term debt as of December 31, 2021. On January 4, 2022, the Company entered into a Securities Purchase Agreement with Edward D. Bagley, pursuant to which the Company issued and sold to Mr. Bagley, in a private placement 1,538,461 shares (the "Shares") of the Company's common stock, par value $0.001 per share, at a purchase price of $1.30 per share of Common Stock. The consideration for the Shares was the cancellation and termination of Mr. Bagley's outstanding bridge loan to the Company in the principal amount of $2,000 originally issued on July 2, 2021 and amended and restated on September 11, 2021. Mr. Bagley is an affiliate of the Company and the Company's single largest stockholder.

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Paycheck Protection Program Loan

On April 18, 2020, the Company, entered into a loan agreement with U.S. Bank National Association Bank, which provided for a loan in the principal amount of $1,499 ("PPP Loan") pursuant to the Paycheck Protection Program under Division A, Title I of the CARES Act, which was enacted March 27, 2020. The PPP Loan had a two-year term and bears interest at a rate of 1.0% per annum. Monthly principal and interest payments are deferred for approximately sixteen months after the date of disbursement.

The Company's Paycheck Protection Program Loan ("PPP Loan") under the CARES Act was forgiven by Small Business Administration effective April 29, 2022. With this forgiveness, the Company is not required to repay the principal amount of $1,499 and the interest of $31. The Company received $953 back that it had already paid towards principal and interest payments toward the PPP Loan. The Company treated the forgiveness as extinguishment of debt in this quarter ended September 30, 2022 and reported the entire principal amount forgiven of $1,499 along with interest already accounted for of $29as a gain on extinguishment of debt included in other income.

2022 Bridge Loan

On October 28, 2022 the Company obtained a bridge loan in the principal amount of $2,000 from Edward D. Bagley (the "2022 Bridge Loan"), an affiliate of the Company. The 2022Bridge Loan is evidenced by a promissory note dated October 28, 2022 (the "2022 Note") issued by the Company to Mr. Bagley.The2022 Note bears interest at a rate of 12.0% per annum and matures on October 28, 2023. Mr. Bagley is an affiliate of the Company and the Company's single largest stockholder. This Bridge Loan of $2,000is included under short-term debt as of December 31, 2022.

10. Share-Based Payments

Employee Stock Option Plans

The Company's share-based incentive plan offering stock options is primarily through 2007 Equity Incentive Plan (the "2007 Plan"). Under this plan, one new share is issued for each stock option exercised. The plan is described below.

The 2007 Plan was restated and approved by the shareholders on December 12, 2016. Provisions of the restated 2007 Plan include the granting of up to 2,000,000 incentive and non-qualified stock options, stock appreciation rights, restricted stock and restricted stock units. Options may be granted to employees, officers, non-employee directors and other service providers and may be granted upon such terms as the Compensation Committee of the Board of Directors determines in their sole discretion.

All vesting schedules for options granted are based on 3 or 4-year vesting schedules, with either one-third or one-fourth vesting on the first anniversary and the remaining options vesting ratably over the remainder of the vesting term. Generally, directors and officers have 3-year vesting schedules and all other employees have 4-year vesting schedules. Additionally, in the event of a change in control or the occurrence of a corporate transaction, the Company's Board of Directors has the authority to elect that all unvested options shall vest and become exercisable immediately prior to the event or closing of the transaction. As of December 31, 2022, the Company had 245,977 options with contractual lives of ten years and 242,500 options with contractual lives of 6 years.

As of December 31, 2022, there were 488,477 options outstanding under the 2007 Plan. As of December 31, 2022, the 2007 Plan had 976,377 authorized unissued options.

The Company uses judgment in determining the fair value of the share-based payments on the date of grant using an option-pricing model with assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to, the risk-free interest rate of the awards, the expected life of the awards, the expected volatility over the term of the awards, and the expected dividends of the awards. The Company uses the Black-Scholes option pricing model to determine the fair value of share-based payments granted under the guidelines of ASC Topic 718.

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The Company did not grant any options during the year ended December 31, 2022.

In applying the Black-Scholes methodology to the 50,000 options granted during the year ended December 31, 2021, the Company used the following assumptions:

Risk free interest rate, average	0.84%
Expected option life, average	5 years
Expected price volatility, average	69.74%
Expected dividend yield	0%

The risk-free interest rate is determined using the U.S. Treasury rate in effect as of the date of the grant, based on the expected life of the stock option. The expected life of the stock option is determined using historical data.

The expected price volatility is determined using a weighted average of daily historical volatility of the Company's stock price over the corresponding expected option life.

Under guidelines of ASC Topic 718, the Company recognizes the associated compensation cost for only those awards expected to vest on a straight-line basis over the underlying requisite service period. The Company estimated the forfeiture rates based on its historical experience and expectations about future forfeitures.

The following table shows the stock option activity:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
As of December 31, 2020	843,446	$ 6.60	4.91	$ —
Granted	50,000	2.30		
Expired and canceled	(34,875)	6.70		
Forfeited prior to vesting	(27,500)	2.50		
Exercised	—	—		
As of December 31, 2021	831,071	$ 6.47	4.10	$ —
Granted	—	—		
Expired and canceled	(274,379)	7.44		
Forfeited prior to vesting	(68,215)	2.50		
Exercised	—	—		
As of December 31, 2022	488,477	$ 6.48	3.42	$ —
Vested and Expected to Vest at December 31, 2021	831,071	$ 6.47	4.10	$ —
Vested at December 31, 2021	555,237	$ 8.46	3.64	$ —
Vested and Expected to Vest at December 31, 2022	488,477	$ 6.48	3.42	$ —
Vested at December 31, 2022	373,612	$ 7.72	3.22	$ —

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Dollars in thousands, except share and per share amounts)

The total pre-tax compensation cost related to stock options recognized during the years ended December 31, 2022 and 2021 was $112 and $131, respectively. Tax benefit from compensation cost related to stock options during the years ended December 31, 2022 and 2021, respectively was $28 and $0. As of December 31, 2022, the total compensation cost related to stock options not yet recognized and before the effect of any forfeitures was $152, which is expected to be recognized over approximately the next 2.65 years on a straight-line basis.

Employee Stock Purchase Plan

During the years ended December 31, 2022 and 2021, the Company issued shares to employees under the Company's 2016 Employee Stock Purchase Plan (the "ESPP"). The ESPP was approved by the Company's shareholders on December 12, 2016. As of December 31, 2022, and December 31, 2021, 395,524 and 402,704, respectively of the originally approved 500,000 shares were available for offerings under the ESPP. Offering periods under the ESPP commence on each Jan 1 and July 1 and continue for a duration of six months. The ESPP is available to all employees who do not own, or are deemed to own, shares of stock making up an excess of 5% of the combined voting power of the Company, its parent or subsidiary.

During each offering period, each eligible employee may purchase shares under the ESPP after authorizing payroll deductions. Under the ESPP, each employee may purchase up to the lesser of 2,500 shares or $25 of fair market value (based on the established purchase price) of the Company's stock for each offering period. Unless the employee has previously withdrawn from the offering, his or her accumulated payroll deductions will be used to purchase common stock on the last business day of the period at a price equal to 85% (or a 15% discount) of the fair market value of the common stock on the first or last day of the offering period, whichever is lower.

Shares purchased and compensation expense associated with Employee Stock Purchase Plans were as follows:

	2022	2021
Shares purchased under ESPP plan	7,180	11,164
Plan compensation expense	$ 1	$ 5

Issuance of Common Stock and Warrants

On September 13, 2020, the Company, entered into a Securities Purchase Agreement (the "Purchase Agreement") with certain purchasers named therein (the "Purchasers"), pursuant to which the Company issued and sold, in a registered direct offering 2,116,050 shares (the "Shares") of the Company's common stock, par value $0.001 per share (the "Common Stock") at an offering price of $2.4925 per share, (the "Registered Offering"). The Company received gross proceeds of approximately $5,275 (4,764 net of issuance costs) in connection with the Registered Offering, before deducting placement agent fees and related offering expenses. In a concurrent private placement, the Company issued to the Purchasers who participated in the Registered Offering warrants exercisable for an aggregate of 1,058,025 shares of common stock at an exercise price of $2.43 per share. Each warrant became immediately exercisable and had an expiry term of five years from the issuance date.

On September 12, 2021, the Company entered into a securities purchase agreement with certain purchasers named therein, pursuant to which the Company issued 3,623,189 shares of the Company's common stock, par value $0.001 per share at an offering price of $2.76 per share. The Company received gross proceeds of approximately $10,000 and net proceeds of $9,288 after deducting placement agent fees and related offering expenses. In a concurring private placement the Company also issued to the same purchasers warrants exercisable for an aggregate of 3,623,189 shares of common stock at an exercise price of $2.64 per share. Each warrant became immediately exercisable and will expire on March 15, 2027.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Dollars in thousands, except share and per share amounts)

11. Significant Customers

There were no sales to significant customers that represented more than 10 percent of total revenues during the years ended December 31, 2022 and 2021.

The following table summarizes the percentage of total gross receivables from significant customers that represented more than 10 percent of total gross accounts receivable:

	As December 31,	
	2022	2021
Customer A	—%	10.9 %
Customer B	—%	10.6 %

12. Fair Value Mezasurements

The fair value of the Company's financial instruments reflects the amounts that the Company estimates it will receive in connection with the sale of an asset or pay in connection with the transfer of a liability in an orderly transaction between market participants at the measurement date (exit price). The fair value hierarchy prioritizes the use of inputs used in valuation techniques into the following three levels:

Level 1 - Quoted prices in active markets for identical assets and liabilities.

Level 2 - Observable inputs other than quoted prices in active markets for identical assets and liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. This category generally includes U.S. Government and agency securities; municipal securities; mutual funds and securities sold and not yet settled.

Level 3 - Unobservable inputs.

The substantial majority of the Company's financial instruments are valued using quoted prices in active markets or based on other observable inputs.

There were no financial instruments that were re-measured by the Company as of December 31, 2022. The following tables set forth the fair value of the financial instruments re-measured by the Company as of December 31, 2021.

	Level 1	Level 2	Level 3	Total
December 31, 2021				
Corporate bonds and notes	$ —	$ 1,440	$ —	$ 1,440
Municipal bonds	—	1,570	—	1,570
Total	$ —	$ 3,010	$ —	$ 3,010

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Dollars in thousands, except share and per share amounts)

13. Income Taxes

Consolidated income (loss) before taxes for domestic and foreign operations consisted of the following:

	Year ended December 31,	
	2022	2021
Domestic	$ 28,754	$ (6,201)
Foreign	(1,294)	(1,776)
Total	$ 27,460	$ (7,977)

The Company’s benefit from (provision for) income taxes consisted of the following:

	Year ended December 31,	
	2022	2021
Current:		
Federal	$ (6,753)	$ 373
State	(98)	(9)
Foreign	(53)	(81)
Total current	(6,904)	283
Deferred:		
Federal	1,132	1,326
State	(976)	398
Foreign	165	302
Total	321	2,026
Change in valuation allowance	(321)	(2,026)
Total deferred	—	—
Tax benefit (provision)	$ (6,904)	$ 283

The income tax benefit (provision) differs from that computed at the federal statutory corporate income tax rate as follows:

	Year ended December 31,	
	2022	2021
Tax benefit (provision) at federal statutory rate	$ (5,768)	$ 1,674
State income tax benefit (provision), net of federal benefit	(1,093)	335
Research and development tax credits	457	361
Foreign earnings or losses taxed at different rates	(68)	(28)
Tax rate change	(60)	(2)
Other	(51)	(31)
Change in valuation allowance	(321)	(2,026)
Tax benefit (provision)	$ (6,904)	$ 283

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Dollars in thousands, except share and per share amounts)

The tax effects of significant temporary differences representing net deferred tax assets and liabilities consisted of the following:

	2022	2021
Deferred revenue	$ 11	$ 9
Basis difference in intangible assets	6,604	1,319
Inventory reserve	2,258	2,377
Net operating loss carryforwards	3,075	7,121
Research and development tax credits	48	1,579
Accrued expenses	120	43
Stock-based compensation	215	308
Allowance for sales returns and doubtful accounts	81	83
Difference in property and equipment basis	(83)	(124)
Convertible debt	(110)	(112)
Capitalized research expenditure	922	—
Other	364	581
Total net deferred income tax asset	13,505	13,184
Less: Valuation allowance	(13,505)	(13,184)
Net deferred income tax asset (liability)	$ —	$ —

The Company has not provided for foreign withholding taxes on undistributed earnings of its non-U.S. subsidiaries since these earnings are intended to be reinvested indefinitely, in accordance with guidelines contained in ASC Topic 740, *Accounting for Income Taxes*. It is not practical to estimate the amount of additional taxes that might be payable on such undistributed earnings.

The Company routinely evaluates the likelihood of realizing the benefit of its deferred tax assets and may record a valuation allowance if, based on all available evidence, it determines that it is more likely than not some portion of the tax benefit will not be realized. As of December 31, 2022, the Company had an aggregate of approximately $13.5 million in deferred tax assets primarily related to intangible assets, net operating losses, tax credit carryforwards, and inventory basis differences. On a quarterly basis, the Company tests the value of deferred tax assets for impairment at the taxpaying-component level within each tax jurisdiction. Significant judgment and estimates are required in determining whether valuation allowances should be established as well as the amount of such allowances. When making such determination, consideration is given to, among other things, the following:

- sufficient taxable income within the allowed carryback or carryforward periods;
- future reversals of existing taxable temporary differences, including any tax planning strategies that could be utilized;
- nature or character (e.g., ordinary vs. capital) of the deferred tax assets and liabilities; and
- future taxable income exclusive of reversing temporary differences and carryforwards.

Based on the foregoing criteria, the Company determined that it does not meet the “more likely than not” threshold that net operating losses, tax credits and other deferred tax assets will be realized. Accordingly, the Company recorded a full valuation allowance at December 31, 2022.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Dollars in thousands, except share and per share amounts)

As of December 31, 2022 the Company has federal net operating loss ("NOL") carryforwards of approximately $0.4 million (pre-tax), state NOL carryforwards of approximately 0.8 million (pre-tax) and Spain NOL carryforwards of approximately $11.6 million (pre-tax). The federal NOL carryforward expires in 2029. The Spain NOL carryforward does not expire. The state NOL carryforwards expire over various periods.

Effective July 1, 2007, the Company adopted the accounting standards related to uncertain tax positions. This standard requires that tax positions be assessed using a two-step process. A tax position is recognized if it meets a "more likely than not" threshold, and is measured at the largest amount of benefit that is greater than 50 percent likely of being realized. Uncertain tax positions must be reviewed at each balance sheet date. Liabilities recorded as a result of this analysis must generally be recorded separately from any current or deferred income tax accounts.

The total amount of unrecognized tax benefits at December 31, 2022 and 2021, that would favorably impact our effective tax rate if recognized was $976 and $895, respectively. As of December 31, 2022 and 2021, we accrued $44 and $16, respectively, in interest and penalties related to unrecognized tax benefits. We account for interest expense and penalties for unrecognized tax benefits as part of our income tax provision.

Although we believe our estimates are reasonable, we can make no assurance that the final tax outcome of these matters will not be different from that which we have reflected in our historical income tax provisions and accruals. Such difference could have a material impact on our income tax provision and operating results in the period in which we make such determination.

A reconciliation of the beginning and ending amount of liabilities associated with uncertain tax positions is as follows:

	Year ended December 31,	
	2022	2021
Balance - beginning of year	$ 895	$ 861
Additions based on tax positions related to the current year	75	61
Additions for tax positions of prior years	—	—
Reductions for tax positions of prior years	—	—
Settlements	—	(20)
Lapse in statutes of limitations	(8)	(7)
Uncertain tax positions, ending balance	$ 962	$ 895

The Company's U.S. federal income tax returns for 2018 through 2022 are subject to examination. The Company's U.S. 2018 federal income tax return is currently under examination. The Company also files in various state and foreign jurisdictions. With few exceptions, the Company is no longer subject to federal, state, or non-U.S. income tax examinations by tax authorities for years prior to 2017.

(Dollars in thousands, except share and per share amounts)

14. Geographic Sales Information

The United States was the only country to contribute more than 10 percent of total revenues in each fiscal year. The Company's revenues are substantially denominated in U.S. dollars and are summarized geographically as follows:

	Year ended December 31,	
	2022	2021
United States	$ 12,096	$ 14,042
All other countries	13,109	14,925
Total	$ 25,205	$ 28,967

15. Subsequent events

In January 2023, the 2022 Bridge loan of $2,000 along with applicable interest was repaid.

The Company received $1,350 and recorded the settlement gain in March 2023 upon entering into an agreement with a service provider to settle a contract dispute arising on provision of software services to the Company.

EXHIBIT 21.1

SUBSIDIARIES OF THE REGISTRANT

NetStreams, Inc. (DE)
NetStreams, LLC. (TX)
ClearOne Web Solutions, Inc. (DE)
ClearOne Communications Hong Kong Limited (Hong Kong)
ClearOne Ltd. (Israel)
ClearOne DMCC Branch (Dubai)
ClearOne Innovation India Private Ltd. (India)
ClearOne Spain SL (Spain)

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statements (Nos. 333-205356, 333-209130, 333-148789 and 333-137859) on Form S-8 on Form S-1 (No. 333-249506) and on Form S-3 (Nos. 333-259799, 333-248412 and 333-238085) of ClearOne, Inc. of our report dated March 31, 2023, relating to our audit of the consolidated financial statements, which appears in this Annual Report on Form 10-K of ClearOne, Inc. for the year ended December 31, 2022.

/s/ Tanner LLC

Salt Lake City, UT
March 31, 2023

EXHIBIT 31.1

CERTIFICATION

I, Derek L. Graham, certify that:

1. I have reviewed this annual report of ClearOne, Inc. on Form 10-K;

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.

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.

March 31, 2023

By: */s/ Derek L. Graham*
Derek L. Graham
Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 31.2

CERTIFICATION

I, Narsi Narayanan, certify that:

1. I have reviewed this annual report of ClearOne, Inc. on Form 10-K;

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 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;

    b) 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;

    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.

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.

March 31, 2023

By: */s/ Narsi Narayanan*
Narsi Narayanan
Chief Financial Officer
(Principal Accounting and Principal Financial Officer)

EXHIBIT 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

**Pursuant to 18 U.S.C. Section 1350,
As adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

I, Derek L. Graham, certify, to my best knowledge and belief, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the annual report of ClearOne, Inc. (the "Company") on Form 10-K for the year ended December 31, 2022 , fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that the information contained in such annual report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of the Company.

March 31, 2023

By: */s/ Derek L. Graham*
Derek Graham
Chief Executive Officer
(Principal Executive Officer)

This certification accompanies each Report pursuant to §906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by the Sarbanes-Oxley Act of 2002, be deemed filed by the Company for purposes of §18 of the Securities Exchange Act of 1934, as amended.

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

EXHIBIT 32.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER

Pursuant to 18 U.S.C. Section 1350,
As adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

I, Narsi Narayanan, certify, to my best knowledge and belief, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the annual report of ClearOne, Inc. (the "Company") on Form 10-K for the year ended December 31, 2022 , fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that the information contained in such annual report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of the Company.

March 31, 2023

By: */s/ Narsi Narayanan*
Narsi Narayanan
Chief Financial Officer
(Principal Accounting and Principal Financial Officer)

This certification accompanies each Report pursuant to §906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by the Sarbanes-Oxley Act of 2002, be deemed filed by the Company for purposes of §18 of the Securities Exchange Act of 1934, as amended.

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