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

# FORM 10-K

**(Mark One)**

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
**For the fiscal year ended December 31, 2022**
**OR**

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

**Commission File Number: 001-40464**

# ZETA GLOBAL HOLDINGS CORP.
**(Exact name of Registrant as specified in its Charter)**

| **Delaware** | **80-0814458** |
|---|---|
| **(State or other jurisdiction of incorporation or organization)** | **(I.R.S. Employer Identification No.)** |
| **3 Park Ave, 33rd Floor New York, NY 10016** | **10016** |
| **(Address of principal executive offices)** | **(Zip Code)** |

**Registrant's telephone number, including area code: (212) 967-5055**

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

| **Title of each class** | **Trading Symbol(s)** | **Name of each exchange on which registered** |
|---|---|---|
| **Class A common stock, par value $0.001 per share** | **ZETA** | **The New York Stock Exchange** |

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

| | | | |
|---|---|---|---|
| Large accelerated filer | ☐ | Accelerated filer | ☒ |
| Non-accelerated filer | ☐ | Small 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 Exchange Act). YES ☐ NO ☒

As of June 30, 2022, the aggregate market value of the registrant's Class A common stock, $0.001 par value, held by non-affiliates of the registrant was approximately $510.9 million (based upon the closing sale price of the Class A common stock on June 30, 2022 on The New York Stock Exchange). The market value of the registrant's Class B common stock is not included in the above value as there is no active market for such stock.

The number of shares of registrant's Class A common stock outstanding as of January 31, 2023 was 175,320,562. The number of shares of registrant's Class B common stock outstanding as of January 31, 2023 was 32,099,302.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the registrant's definitive Proxy Statement relating to its 2023 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2022 are incorporated herein by reference in Part III.

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## CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), which involve substantial risks and uncertainties. All statements made in this Annual Report on Form 10-K that are not statements of historical fact, including statements about our beliefs and expectations and regarding future events or our future results of operations, financial condition, business, strategies, financial needs, and the plans and objectives of management, are forward-looking statements and should be evaluated as such. These statements often include words such as "anticipate," "expect," "suggests," "plan," "believe," "intend," "estimates," "targets," "projects," "should," "could," "would," "may," "will," "forecast" and other similar expressions or the negative of those terms. We base these forward-looking statements on our current expectations, plans and assumptions that we have made in light of our experience in the industry, as well as our perceptions of historical trends, current conditions, expected future developments and other factors we believe are appropriate under the circumstances at such time. As you read this Annual Report on Form 10-K, you should understand that these statements are not guarantees of future performance or results. The forward-looking statements are subject to and involve risks, uncertainties and assumptions, and you should not place undue reliance on these forward-looking statements. Although we believe that these forward-looking statements are based on reasonable assumptions at the time they are made, you should be aware that many factors could affect our business, results of operations and financial condition and could cause actual results to differ materially from those expressed in the forward-looking statements. Factors that may cause actual results to differ materially from current expectations include, but are not limited to:

- We may experience fluctuations in our operating results, which could make our future operating results difficult to predict;
- If we fail to innovate and make the right investment decisions in our product offerings and platform, we may not attract and retain customers and our revenue and results of operations may decline;
- Our success and revenue growth depends on our ability to add and retain scaled customers, which we define as customers from which we have generated trailing-12-month revenues of at least $100,000, and grow our super-scaled customer base, which is a subset of scaled customers and defined as customers from which we have generated trailing-12-month revenues of at least $1,000,000;
- If we do not manage our growth effectively, the quality of our platform and solutions may suffer and our business, results of operations and financial condition may be adversely affected;
- Our business and the effectiveness of our platform depends on our ability to collect and use data online. New consumer tools, regulatory restrictions and potential changes to web browsers and mobile operating systems all threaten our ability to collect such data, which could harm our operating results and financial condition and adversely affect the demand for our products and solutions;
- The standards that private entities and inbox service providers adopt in the future to regulate the use and delivery of email may interfere with the effectiveness of our platform and our ability to conduct business;
- A significant inadvertent disclosure or breach of confidential and/or personal information we process, or a security breach of our or our customers', suppliers' or other partners' computer systems could be detrimental to our business, reputation, financial performance and results of operations;
- Our infrastructure depends on third-party data centers, systems and technologies to operate our business, the disruption of which could adversely affect our business, results of operations and financial condition; and
- The impact of the COVID-19 pandemic, or affect of any future epidemics, pandemics or public health crises on the global economy, our customers, employees and business;
- Other factors discussed in other sections of this Annual Report on Form 10-K, including the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations."

You should not place undue reliance on our forward-looking statements and you should not rely on forward-looking statements as predictions of future events. The results, events and circumstances reflected in the forward-looking statements may not be achieved or occur, and actual results, events or circumstances could differ materially from those described in the forward-looking statements. The forward-looking statements made in this Annual Report on Form 10-K should not be construed by you to be exhaustive and speak only as of the date of this report. We undertake no obligation to update any forward-looking statements made in this Annual Report on Form 10-K to reflect events or circumstances after the date of this Annual Report on Form 10-K or to reflect new information or the occurrence of unanticipated events, except as required by law. If we update one or more forward-looking statements, no inference should be drawn that we will make additional updates with respect to those or other forward-looking statements.

Unless the context otherwise requires, references in this Form 10-K to "Zeta," "we," "us," "our" or "the Company" refer to Zeta Global Holdings Corp.

**Our Website and Availability of SEC Reports and Other Information**

The Company maintains a website at the following address: is https://zetaglobal.com. The information on the Company's website is not incorporated by reference in, or otherwise to be regarded as part of this Annual Report on Form 10-K.

We make available on or through our website certain reports and amendments to those reports we file with or furnish to the Securities and Exchange Commission ("SEC") pursuant to Section 13(a) or 15(d) of the Exchange Act. These include our annual reports on Form 10-K, our quarterly reports on Form 10-Q, and our current reports on Form 8-K. We make this information available on our website free of charge as soon as reasonably practicable after we electronically file the information with, or furnish it to, the SEC.

Investors and others should note that we routinely announce material information to investors and the marketplace using SEC filings, press releases, public conference calls, webcasts, and the Zeta Global Investor Relations website. We use these channels as well as social media channels (e.g., the Zeta Facebook account (facebook.com/ZetaGlobal); the Zeta Instagram account (instagram.com/zetaglobal); the Zeta Twitter account (twitter.com/zetaglobal); and the Zeta LinkedIn account (linkedin.com/company/zetaglobal)) as a means of disclosing information about our business to our customers, colleagues, investors, and the public. While not all of the information that we post to the Zeta Investor Relations website or on our social media channels is of a material nature, some information could be deemed to be material. Accordingly, we encourage investors, the media, and others interested in Zeta to review the information that we share on the Zeta Investor Relations website and on our social media channels. The information on the Zeta Investor Relations website and the Company's social media channels is not incorporated by reference in, or otherwise to be regarded as part of, this Annual Report on Form 10-K.

## PART I

### Item 1. Business.

#### Overview

Zeta is a leading omnichannel data-driven cloud platform that provides enterprises with consumer intelligence and marketing automation software. We empower our customers to target, connect and engage consumers through software that delivers personalized marketing across all addressable channels, including email, social media, web, chat, Connected TV ("CTV") and video, among others. We believe our actionable insights derived from consumer intent enable our customers to acquire, grow and retain consumer relationships more efficiently and effectively than the alternative solutions available in the market.

Our Zeta Marketing Platform, or ZMP, is the largest omnichannel marketing platform with identity data at its core. The ZMP can analyze billions of structured and unstructured data points to predict consumer intent by leveraging sophisticated machine learning algorithms and the industry's largest opted-in data set for omnichannel marketing. The ZMP acts on these insights by connecting with consumers through native integration of marketing channels and API integration with third parties. The ZMP's data-driven algorithms and processes learn and optimize each customer's marketing program in real time, producing a 'flywheel effect' that enables our customers to test, learn and improve their marketing programs in real time.

The ZMP empowers our customers to personalize consumer experiences at scale across multiple touchpoints. Marketing programs are created and orchestrated by our customers through automated workflows and sophisticated dashboards. Our Consumer Data Platform ("CDP+") ingests, analyzes and distills disparate data points to generate a single view of a consumer, encompassing identity, profile characteristics, behaviors and purchase intent, which is then made accessible through a single console. Our Opportunity Explorer synthesizes Zeta's proprietary data and data generated by our customers to uncover consumer insights that are translated into marketing programs designed for highly targeted audiences across digital channels, including email, SMS, websites, applications, social media, CTV and chat.

We designed the ZMP using a flexible, service-oriented architecture in order to facilitate rapid development of new solutions, to meet evolving industry demands and to support new use cases and marketing requirements. The ZMP is hosted in the Zeta Hybrid Cloud, which is a unique pairing of a public cloud (AWS/Google/Azure) deployment and self-hosted private cloud (VMware/Docker/Kubernetes) resources designed to facilitate workload management in a cost-effective, performant and efficient manner.

We have also dedicated significant resources to the goal of building customer trust by developing and implementing programs designed to protect data privacy and to promote a secure technical environment. The resources we dedicated to this goal include engineers, analysts, lawyers, policy experts and operations specialists, as well as hardware and software from leading vendors and solutions we have designed and built. In particular, we have implemented a number of technical innovations, process enhancements and industry solutions in response to our increased obligations with respect to our data. For example, we can identify and implement user consent parameters and opt-in or opt-out as applicable and can evaluate whether such consents apply to our various data sources, products or customers.

The ZMP is built on the following four pillars:

***1. Opted-in Data Set***

Our data set is an amalgamation of our private proprietary data, publicly available data and data provided by our partner ecosystem.

Our data set contains more than 235 million opted-in individuals in the U.S. and more than 535 million opted-in individuals globally with an average of more than 2,500 demographic and behavioral attributes per individual. On average, we ingest more than 1 trillion content consumption signals per month on a global basis and synthesize this information into hundreds of intent-based audiences, which can then be used to create marketing programs. All this data is managed through a proprietary database structure that has patented flexibility, speed and scalability.

***2. Patented AI Engine***

We believe our proprietary data is key to our AI engine. We analyze this data through extensive application of AI technologies, including machine learning and natural language processing. We leverage our AI technologies and data within the ZMP to:

- Seamlessly collect and ingest structured and unstructured data into the ZMP;
- Quickly and reliably analyze key consumer attributes and signals;
- Identify consumer intent by running sophisticated algorithms to analyze data;
- Cluster related concepts and prioritize actionable insights to create intent-based graphs;
- Create audiences comprised of individuals or affinity-driven clusters scored based on intent;
- Personalize content to make experiences more relevant for the consumer and profitable for the enterprises; and
- Create channel and content recommendations to optimize marketing performance.

***3. Omnichannel Engagement***

Our platform provides integrated access to a wide range of omnichannel inventory and data sources, as well as third-party services and platforms. The ZMP integrates these third-party sources and services to enable our customers to deploy their targeted marketing programs through a wider range of channels, devices and formats, all within a single platform. This enables our customers to improve how they identify and engage the modern consumer who is using multiple devices and platforms (e.g., mobile, website, applications, social media, CTV and email).

***4. Performance Optimization***

Zeta's platform provides real-time results to our customers through a graphical dashboard and makes recommendations for improvement through the same graphical interface. Our AI engineers continuously update the machine learning algorithms to improve the overall ROI for our customers.

## Our Products

Our product suites are powered by the ZMP and are designed to enable enterprises to acquire, grow and retain consumer relationships more efficiently and effectively than alternative solutions available in the market. Our customers can purchase our products individually or in combination to obtain a 360-degree view of the consumer and our products can scale based on the needs of the customer. We also offer various technical upgrades, consulting services, additional integrations and access to ad-hoc data sources, services or channels. As a result, our customers are incentivized to allocate an increasing percentage of their marketing budgets to our platform and to enter into long-term contractual commitments with us.

***Opportunity Explorer***

As our keystone product suite, the Opportunity Explorer detects and surfaces new marketing opportunities for our customers to achieve their business goals. Based on our proprietary data and uniquely modeled intender scores, the Opportunity Explorer can present immediate and actionable opportunities within the ZMP that our customers can then use to generate growth. A closed-loop cycle from insight to activation ensures that our AI engine can quickly learn from the available data, identify the best data signals and create accurate and up-to-date Zeta Identity Graphs™. The Opportunity Explorer is woven into the fabric of the ZMP and is accessible through five product modules: MarketPulse, CustomerPulse, DMAPulse, AudiencePulse and CompetitorPulse.

- *MarketPulse* provides marketers with real-time notifications and longitudinal visualizations representing changes in consumer sentiment and interest.
- *CustomerPulse* provides marketers with real-time, actionable insights across acquisition, retention and growth opportunities derived by enriching a customer's data with Zeta data.
- *DMAPulse* provides marketers with real-time, actionable insights on designated market areas that should receive increased or decreased investments to optimize market share and customer acquisition efficiency.

- *AudiencePulse* provides marketers with real-time, actionable insights on more than 900 Zeta audiences predicting consumer intent and interest.
- *CompetitorPulse* providers marketers with actionable insights on the business's competitive set and opportunities to capture market share and prevent customer attrition.

Our customers can use all five of the modules or choose any individual module to obtain data-cloud based insights on their existing consumers and prospects. We offer Opportunity Explorer for a licensing fee and / or an incremental fee based on customers' utilization of the ZMP. The terms of our subscription agreements are typically quarterly or annual.

***CDP+***

As part of our platform, customers can use the CDP+ as their system of record for all consumer information. The CDP+ delivers a single, actionable view of customers and prospects that include real-time identifiers and attributes. Customers can consolidate multiple databases and internal and external data feeds and organize their data based on their unique needs and performance metrics. Enriched with intent-based scoring from Zeta's Data Cloud, CDP+ makes it possible to identify anonymous website visitors and engage them across channels with meaningful, individualized experiences. The CDP+ has extensive technical flexibility and can adjust to our customers' custom data schemas with limited or no pre-configuration required. If necessary, we can also engineer a deeper level of data integration between the CDP+ and our customers' marketing infrastructure. As part of our standard offering, we provide our customers with service-level agreements ("SLAs") that guarantee high-levels of reliability, performance and security. Customers pay Zeta a design and development fee and a licensing fee for the CDP+. The terms of our subscription agreements are typically annual or multi-year.

## Our Growth Strategies

Our data and AI-powered platform enables our customers to transform their digital marketing strategy, accelerate their revenue growth and enhance business returns. In turn, our customers' success motivates them to increase their use of our platform, thereby accelerating our revenue and growth. Key elements of our long-term growth strategy include:

***Further penetrate our existing customer base.*** We have customers spanning a wide spectrum of industry verticals and we believe we can achieve significant organic growth by cross-selling our existing solutions, making full use of our data capabilities and insights and by capturing increased share of our scaled customers' marketing spend by introducing new features and functionalities within the ZMP.

***Acquire new scaled customers.*** We intend to aggressively pursue new scaled customers by investing in our sales and customer service teams while driving increased efficiencies in our go-to-market approach. We also intend to focus on converting our scaled customers into new super-scaled customers. The Opportunity Explorer also serves as a sales accelerator to help acquire and grow new customers. We also have extensive relationships with many marketing agencies and enterprises and believe we can extend our platform to provide B2B marketing capabilities.

***Continue to innovate and develop new products.*** With over 500 data scientists and engineers, we believe we are well positioned to quickly develop new products and take full advantage of the shift to digital marketing. Since we view data as one of our key competitive advantages, we will also continue to invest resources to expand our data offerings, both from third-party providers, as well as our proprietary data sources.

***Expand into international markets***. As we expand relationships with our existing customers in the U.S., we are also investing in select regions in Europe.

***Continue to strengthen our partnership ecosystem and expand sales capacity***. With a focus on growing our sales capacity, we are building a sophisticated sales operation to focus on opportunity creation and progression. We believe these new capabilities will allow us to further strengthen our relationships with our existing customers and gain global market share.

## Our Key Strengths

Zeta's competitive strengths historically have included the following:

***Omnichannel Engagement***

Through the ZMP, our customers are able to identify and target consumers across a wide range of digital channels. These channels can work independently, in parallel or in concert depending on the marketing strategies and tactics of our customers. Many of these channels, such as email and programmatic, are native to the ZMP, while others, such as social media, are accessed through API integrations with companies, such as Facebook and Snap.

***Actionable Insights***

Our customers can use the Opportunity Explorer module in the ZMP to obtain and take action on high-value consumer insights in real-time. The ZMP monitors, aggregates and synthesizes the behaviors of individuals globally across multiple points of interactions to predict interest and intent.

***Recognized Leader in Marketing Automation***

We believe our customers choose our platform over others because of its powerful, integrated and easy to use applications, rapid integration with various channels and technologies, and seamless onboarding of our customers' and third-party data. We have been recognized by various third-party research reports as a leader in the marketing automation sector such as in 2022, when we were recognized as a "Leader" in The Forrester Wave™: Email Marketing Service Providers, Q1 2022 and received the highest possible scores across eight criteria including innovation roadmap, market approach, content management, dynamic content, and measuring engagement.

***Secure, Scalable and Reliable Platform***

The ZMP has been designed to provide our customers with high levels of reliability, data integrity, performance and security. We built and maintain a multi-tenant application architecture that has been designed to enable our service to scale securely, reliably and cost-effectively to tens of thousands of customers and millions of users. Our multi-tenant application architecture maintains the integrity and separation of customer data while still permitting all customers to use the same application functionality simultaneously. Our architecture also enables us to segment access privileges across our user base.

## Our Customers

We work with some of the largest and most well-known enterprises across a wide spectrum of industry verticals including financial services, consumer & retail, telecommunications, business services and insurance, which contributed 13%, 12%, 12%, 11% and 8% of our revenues for the year ended December 31, 2022 and 12%, 13%, 12%, 7% and 12% of our revenues for the year ended December 31, 2021, respectively. 98% of our revenue for the year ended December 31, 2022 was derived from scaled customers, which we define as customers from which we have generated trailing-12-month revenue of at least $100,000. As a subset of scaled customers, we define super-scaled customers as customers from which we have generated trailing-12-month revenue of atleast $1,000,000. We had 1,155 and 1,035 total customers, and 403 and 355 scaled customers, including 103 and 97 super-scaled customers, as of December 31, 2022 and 2021, respectively.

## Competition

The markets for our products are characterized by intense competition, new industry standards, evolving distribution models, disruptive technology developments, frequent product introductions, short product life cycles, price cutting with resulting downward pressure on gross margins and price sensitivity on the part of customers. Our future success will depend on our ability to enhance and better integrate our existing products, introduce new products on a timely and cost-effective basis, meet changing customer needs, provide best-in-class data security to maintain customer confidence and combat cyber-attacks, extend our core technology into new applications and anticipate emerging standards, business models, software delivery methods and other technological changes.

We believe no single company has offerings that match the comprehensive capabilities of the ZMP and CDP+, but we face collective competition from a variety of companies. Our competitive market is highly fragmented with most competitors focused on specific use cases, end markets and/or types of data sets and point solutions. We believe the principal factors that drive competition between vendors in our market include:

- Quality of insights and analytics;
- Omnichannel automation;
- Real-time scoring and decisioning of data sets;
- Utility of data management tools;
- Comprehensive systems integration;
- Ease and speed of data ingestion and data onboarding; and
- Scale and scope of identity and audience data.

We believe we compete favorably across these factors. In particular, we believe the ZMP's competitive advantages include:

- Intuitiveness and ease of use;
- Comprehensive feature set;
- Present workflows and automation;
- Rapid deployment;
- Flexibility and scalability;
- Seamless integration with a customer's existing technologies; and
- Favorable customer ROI and total cost of ownership.

For additional information, see the section titled "Risk Factors—Risks Related to Our Business and Industry—Our industry is intensely competitive, and if we do not effectively compete against current and future competitors, our business, results of operations and financial condition could be harmed" and "Risk Factors— Risks Related to Data Collection and Security, Intellectual Property and Technology Industry Regulations— Our intellectual property rights may be difficult to enforce and protect, which could enable others to copy or use aspects of our technology without compensating us, thereby eroding our competitive advantages and having an adverse effect on our business, results of operations and financial condition."

**Seasonality**

In general, the marketing industry experiences seasonal trends that affect the vast majority of participants in the digital marketing ecosystem. Historically, marketing activity is higher in the fourth quarter of the calendar year to coincide with the holiday shopping season as compared to the first quarter. As a result, the subsequent first quarter tends to reflect lower activity levels and lower performance. We generally expect these seasonality trends to continue and our ability to effectively manage our resources in anticipation of these trends may affect our operating results.

**Data Privacy & Security Laws**

Contemporary consumers use multiple platforms to learn about and purchase products, and have come to expect a seamless experience across all channels. This challenges marketing organizations to balance the demands of the consumer for a seamless experience with privacy-compliant methods of managing data and using such data to create these experiences. The global data protection landscape is rapidly evolving, and we are or may become subject to numerous state, federal and foreign laws, requirements and regulations governing the collection, use, disclosure, retention, and security of data. In the U.S., both Congress and state legislatures, along with federal regulatory authorities, have continued to increase their attention on the collection and use of consumer data, including as it relates to internet-based marketing. California has enacted broad-based privacy legislation, the California Consumer Privacy Act ("CCPA"), as supplemented by the subsequent California Privacy Rights Act ("CPRA"), which came into force in 2023. State legislatures outside of California have proposed dozens of data privacy bills similar to, but distinct from, the CCPA/CPRA, and new laws have been adopted in Colorado and Virginia which also came into force in 2023. We anticipate that, as with the CCPA/CPRA, new laws in the U.S. at either the state or federal level will generally allow personal information

collection by businesses as the default, so long as data use practices are made transparent to consumers and consumer rights are honored when requested (opt-out model), with the exception of select classes of "sensitive data." To date, despite significant legislative activity around privacy in the states and at the federal level, there have been no significant or credible efforts at legislation that would require prior consent before data is used (opt-in model), apart from sensitive data. Zeta believes that a continued emphasis on an opt-out regime in the U.S. will mean a continued ability to collect and use non-sensitive personal data at scale for marketing purposes.

Outside the U.S., the General Data Protection Regulation ("GDPR") (and the UK equivalent, the United Kingdom GDPR ("UK GDPR")) remain in force in Europe, and, overlaid with country-level laws implementing the ePrivacy Directive, continues to raise questions about the application of these laws to third-party marketing technology companies such as Zeta. Many non-U.S., non-EU jurisdictions have also enacted or are developing laws and regulations governing the collection and use of personal data, including Brazil, Canada, Japan, Singapore, India, South Africa and others. These laws represent a spectrum of opt-in vs. opt-out models, with the GDPR establishing the most stringent set of requirements for obtaining consumer consent. These requirements have served as barriers to the expansion of Zeta's business in these markets; Zeta has created compliant solutions, but has not been able in some cases to achieve sufficient scale of data collection to create compelling business cases for customers in these markets.

## Human Capital

We believe that our employees love working at Zeta because they believe that they are working towards a larger mission. We pride ourselves in hiring the best global talent with employees across the U.S. (including New York and Silicon Valley), the EU, the UK and India. As of December 31, 2022, we had 1,604 employees, including 848 employees located outside of the U.S. None of our U.S. employees are represented by a labor union with respect to their employment. We consider our relations with our employees to be good and have not experienced interruptions of operations or work stoppages due to labor disagreements.

### *Diversity, Equity and Inclusion*

Zeta is devoted to and invested in living our commitment to diversity, equity and inclusion, which we know drives more collaboration, innovation, and better outcomes for teams and individuals. Representation at Zeta, and ensuring an inclusive workplace where all feel like they belong and can bring their true selves at work, is at the core of Zeta's DEI strategy. We strive to empower all talent to excel as unique individuals, while also providing a forum to connect for everyone to learn from one another and celebrate our differences.

Zeta is focused on ensuring equitable processes, standards, and policies. We also create awareness around different backgrounds, cultures and communities through global panel discussions, volunteering and mentoring opportunities, as well as providing comprehensive trainings to all employees.

We currently have five Employee Resource Groups (ERGs) with strong engagement and participation: Bridge Builders (Black Community), WING (Women's Community), PRIDE (LGBTQIA+ community), LiT (Latinx Community) and MOSIAC (AAPI Community). Each ERG also welcomes allies as we believe that creating meaningful change can only be achieved by working collectively as a united team.

### *Compensation, Benefits, and Employee Wellness*

We aim to provide market-competitive compensation and benefit programs for our employees. To recruit and retain the best talent in a highly competitive marketplace, we routinely examine and refresh our compensation packages that may include salary, bonuses, sales commissions and equity. We believe by offering our full-time employees equity under our incentive award plan and providing an employee stock purchase plan, we can build a strong feeling of ownership and commitment to our shared long-term success.

In addition to our commitment to providing market-competitive compensation packages, we continue to look for ways to enhance our total rewards programs. Our full-time employees are offered medical, dental and vision insurance and life and disability insurance plans. These plans are designed to provide a comprehensive benefits package that is flexible and allows employees to maximize benefits based on individual needs. Furthermore, we provide the following programs, which vary by country/region: generous paid time off, family leave, flexible work schedules, and 401(k) matching.

***COVID-19 Response***

To continue to support the well-being of our employees during the COVID-19 pandemic, we have created new resources for our employees to assist with the transition to a remote work environment. We have maintained an engaged and productive workforce without sacrificing our commitment to keeping our team members safe.

**Intellectual Property**

We have a patent portfolio of more than 120 U.S. and international patents and applications which include 18 granted patents and 32 pending patent applications covering artificial intelligence, automation for predictive personalization and consumer identity resolution. Our key patents also include secure data encryption technology enabling us to leverage our CDP+ to enhance our customers' proprietary data while maintaining separation between the data sets. We also currently own trademark registrations and applications for the ZETA and DISQUS names and variants thereof and other product-related marks in the United States and certain foreign countries. We have also registered numerous internet domain names related to our business. We also rely on copyright laws to protect computer programs related to our platform and our proprietary technologies. In addition, we enter into confidentiality agreements and invention or work product assignment agreements with employees and contractors involved in the development of our proprietary intellectual property. We intend to pursue additional intellectual property protection to the extent we believe it would be beneficial and cost effective.

**Item 1A. Risk Factors.**

In addition to the other information set forth in this Annual Report on Form 10-K, you should carefully consider the risks and uncertainties described below, which could materially adversely affect our business, financial condition, results of operations and cash flow.

**Summary of Risk Factors**

We are providing the following summary of the risk factors contained in this Annual Report on Form 10-K to enhance the readability and accessibility of our risk factor disclosures. We encourage you to carefully review the full risk factors immediately following this summary as well as the other information in this report, including the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes. The risks and uncertainties described in this Annual Report on Form 10-K may not be the only ones we face. If any of the risks actually occur, our business, financial condition, operating results, cash flows and prospects could be materially and adversely affected. These risks and uncertainties include, but are not limited to, the following:

- We may experience fluctuations in our operating results, which could make our future operating results difficult to predict.
- If we fail to innovate and make the right investment decisions in our product offerings and platform, we may not attract and retain customers and our revenue and results of operations may decline.
- Our success and revenue growth depends on our ability to add and retain scaled customers and convert our scaled customers into super-scaled customers.
- If we do not manage our growth effectively, the quality of our platform and solutions may suffer, and our business, results of operations and financial condition may be adversely affected.
- Our business and the effectiveness of our platform depends on our ability to collect and use data online. New consumer tools, regulatory restrictions and potential changes to web browsers and mobile operating systems all threaten our ability to collect such data, which could harm our operating results and financial condition and adversely affect the demand for our products and solutions.
- The standards that private entities and inbox service providers adopt in the future to regulate the use and delivery of email may interfere with the effectiveness of our platform and our ability to conduct business.
- A significant inadvertent disclosure or breach of confidential and/or personal information we process, or a security breach of our or our customers', suppliers' or other partners' computer systems could be detrimental to our business, reputation, financial performance and results of operations.
- Our infrastructure depends on third-party data centers, systems and technologies to operate our business, the disruption of which could adversely affect our business, results of operations and financial condition.

- Catastrophic events such as pandemics, earthquakes, flooding, droughts, fire and power outages, and business and operational interruption by man-made problems such as terrorism.

**Risks Related to Our Business and Our Industry**

***Our success and revenue growth depends on our ability to add and retain scaled customers.***

Our success is dependent on regularly adding new customers, in particular new scaled customers, and increasing our existing customers' usage of our platform in order to convert our scaled customers into super-scaled customers. We also continually work on converting our non-scaled customers into scaled customers. Many of our contracts and relationships with customers do not include automatic renewal or exclusive obligations requiring them to use our platform or maintain or increase their use of our platform. Our customers, in particular our scaled customers, typically have relationships with numerous providers and can use both our platform and those of our competitors without incurring significant costs or disruption. Our customers may also choose to decrease their overall marketing spend for any reason, including if they do not believe they are generating a sufficient return on their marketing spend. Accordingly, we must continually work to win new scaled customers and retain existing scaled customers, increase their usage of our platform and capture a larger share of their marketing spend, which may lead to an increase in our super-scaled customers. We may not be successful at educating and training our new and existing customers on how to use our platform, in particular our advanced reporting tools, in order for them to benefit from it and generate revenues.

In 2022, our top ten customers accounted for approximately one-third of our total revenue and no customer accounted for more than 10% of our total revenue. Occasionally, we enter into separate contracts and billing relationships with individual marketing agencies that are owned by the same holding company and account for them as separate customers. However, if a holding company of multiple marketing agencies chooses to exert control over the individual agencies in the future and terminate their relationship with us, it could result in a disproportionate loss of revenue.

A substantial portion of our revenue is derived from usage-based pricing, which is less stable than subscription-based pricing. If our customers, in particular our scaled customers, decide not to continue to use our platform or decrease their usage of our platform for any reason, or if we fail to attract new customers and turn them into scaled customers or super-scaled customers, our revenue could decline, which would materially and adversely harm our business, operating results and financial condition. We cannot assure that our scaled customers will continue to use and increase their spend on our platform or that we will be able to attract a sufficient number of new scaled customers to continue to grow our revenue. If scaled customers representing a significant portion of our business decide to materially reduce their use of our platform or cease using our platform altogether, our revenue could be significantly reduced, which could have a material adverse effect on our business, operating results and financial condition. We may not be able to replace scaled customers who decrease or cease their usage of our platform with new scaled customers that will use our platform to the same extent.

***If we do not manage our growth effectively, the quality of our platform and solutions may suffer, and our business, results of operations and financial condition may be adversely affected.***

The continued growth in our business may place demands on our infrastructure and our operational, managerial, administrative and financial resources. Our success will depend on the ability of our management to manage growth effectively. Among other things, this will require us at various times to:

- strategically invest in the development and enhancement of our platform and data center infrastructure;
- improve coordination among our engineering, product, operations and other support organizations;
- manage multiple relationships with various partners, customers and other third parties;
- manage international operations;
- develop our operating, administrative, legal, financial and accounting systems and controls; and
- recruit, hire, train and retain personnel, especially those possessing extensive engineering skills and experience in complex technologies and data sciences, of which there is limited supply and increasing demand.

If we do not manage our growth well, the efficacy and performance of our platform may suffer, which could harm our reputation and reduce demand for our platform and solutions. Failure to manage future growth effectively could have an adverse effect on our business, results of operations and financial condition.

***We often have long sales cycles, which can result in significant time between initial contact with a potential customer and execution of a customer agreement, making it difficult to project when, if at all, we will obtain new customers and when we will generate revenue from those customers.***

As part of our sales efforts, we invest considerable time and expense evaluating the specific organizational needs of our potential customers and educating these potential customers about the technical capabilities and value of our platforms and solutions. We may spend substantial time and resources prospecting for new business or responding to requests for proposals from potential customers, and these efforts may not result in us ultimately generating any revenue from a potential customer. It is possible that we will be unable to recover any of these expenses.

Our results of operations also depend on sales to enterprise customers, which make product purchasing decisions based in part or entirely on factors, or perceived factors, not directly related to the features of our platform, including, among others, a customer's projections of business growth, uncertainty about economic conditions (including as a result of the COVID-19 pandemic), capital budgets, anticipated cost savings from the implementation of our platform, potential preference for such customer's internally-developed software solutions, perceptions about our business and platform, more favorable terms offered by potential competitors, and previous technology investments. As a result of these and other factors, there can be no assurance that we will be successful in making a sale to a potential customer. If our sales efforts to a potential customer do not result in sufficient revenue to justify our investments, our business, financial condition and results of operations could be adversely affected.

***We may experience fluctuations in our operating results, which could make our future operating results difficult to predict.***

Our quarterly and annual operating results have fluctuated in the past, and we expect our future operating results to fluctuate due to a variety of factors, many of which are beyond our control. Our liquidity and revenue can fluctuate quarter to quarter as certain of our customers have seasonal marketing activity. Historically, marketing activity is higher in the fourth quarter of the calendar year to coincide with the holiday shopping season as compared to the first quarter. As a result, the subsequent first quarter tends to reflect lower activity levels and lower performance. The varying nature of our pricing mix between periods, customers and products may also make it more difficult for us to forecast our future operating results. Further, these factors may make it more difficult to make comparisons between prior, current and future periods. As a result, period-to-period comparisons of our operating results should not be relied upon as an indication of our future performance.

In addition, the following factors may cause our operating results to fluctuate:

- Our usage-based pricing model makes it difficult to forecast revenues from our current customers and future prospects;
- our ability to attract scaled customers and retain and increase sales to existing customers;
- changes in our pricing policies, the pricing policies of our competitors and the pricing or availability of data or other third-party services;

- the seasonal budgeting cycles and internal marketing budgeting and strategic purchasing priorities of our customers;
- our ability to continue to develop and offer products and solutions that are superior to those of our competitors;
- our ability to develop our existing platform and introduce new solutions on our platform;
- our ability to retain and attract top talent;
- our ability to anticipate or respond to changes in the competitive landscape, or improvements in the functionality of competing solutions that reduce or eliminate one or more of our competitive advantages;
- our ability to maintain and expand our relationships with data centers and strategic third-party technology vendors, who provide floor space, bandwidth, cooling and physical security services on which our platform operates;
- our ability to successfully expand our business internationally;
- the emergence of significant privacy, data protection, security or other threats, regulations or requirements applicable to our business and shifting views and behaviors of consumers concerning use of data and data privacy;
- extraordinary expenses, such as litigation or other dispute-related settlement payments; and
- future accounting pronouncements or changes in our accounting policies.

Any one of the factors referred to above or the cumulative effect of any combination of factors referred to above may result in our operating results being below our expectations and the expectations of securities analysts and investors, or may result in significant fluctuations in our quarterly and annual operating results, including fluctuations in our key performance indicators ("KPIs"). This variability and unpredictability could result in our failure to meet our business plan or the expectations of securities analysts or investors for any period. In addition, a significant percentage of our operating expenses are fixed in nature in the short term and based on forecasted revenue trends. Accordingly, in the event of revenue shortfalls, we are generally unable to mitigate the negative impact on our results of operations in the short term.

***Our industry is intensely competitive, and if we do not effectively compete against current and future competitors, our business, results of operations and financial condition could be harmed.***

Our industry is intensely competitive. To sustain and grow our revenue, we must continuously respond to the different trends driving our industry. We generally have flexible master services agreements in place with our customers. Such agreements allow our customers to change the amount of spend through our platform or terminate our services with limited notice. As a result, the introduction of new entrants or technology that are superior to or that achieve greater market acceptance than our products and solutions could negatively impact our revenue. In such an event, we may experience a reduction in market share and may have to respond by reducing our prices, resulting in lower profit margins for us.

There has also been rapid evolution and consolidation in the marketing technology industry, and we expect this trend to continue. Larger companies typically have more assets to purchase emerging companies or technologies, which gives them a competitive edge. If we are not able to effectively compete with these consolidated companies, we may not be able to maintain our market share and may experience a reduction in our revenue. Our success depends on our ability to retain key members of our management team, and on our ability to hire, train, retain and motivate new employees.

Our success depends upon the continued service of members of our senior management team and other key employees. Our Co-Founder and Chief Executive Officer, David Steinberg, is critical to our overall management, as well as the continued development of our platform, relationships with our customers and vendors and our overall strategic direction. We do not maintain “key person” insurance for any member of our senior management team or any of our other key employees. Our senior management and key personnel are all employed on an at-will basis, which means that they could terminate their employment with us at any time, for any reason and without notice. In addition, some of our key employees may receive significant proceeds from sales of our Class A common stock, which may reduce their motivation to continue to work for us. As a result, we may be unable to retain them, which could make it difficult to operate our business, cause us to lose expertise or know-how and increase our recruitment and training costs.

Our success also depends on our ability to hire, train, retain and motivate new employees. Competition for employees in our industry can be intense, and we compete for experienced personnel with many companies that have greater resources than we have. The market for engineering talent is particularly intense in New York, where we are headquartered and in the San Francisco Bay Area, the EU and India where we have offices. Our future growth will also depend in part on our ability to establish sales teams that effectively solve problems and efficiently execute our objectives. We will need to establish teams that are well versed in complex and

varied systems of distribution across national, regional and international markets. We believe that there is significant competition for sales personnel with the sales skills and technical knowledge that we require. Our ability to achieve growth in revenue in the future will depend, in large part, on our success in recruiting, training and retaining sufficient numbers of sales personnel with relevant industry knowledge and strong selling skills.

We believe our corporate culture has been critical to our success and we plan to invest substantial time and resources to continue building it. In particular, Diversity, Equity and Inclusion ("DEI") is a strategic imperative at Zeta. Our DEI team is focused on driving inclusiveness, innovation and stronger business results by attracting a more diverse talent pool and creating a more inclusive work environment for all our employees around the world. Although we have adopted policies to promote compliance with laws and regulations as well as to foster a respectful workplace for all employees, our employees may fail to abide by these policies. In addition to damaging our reputation, actual or alleged misconduct could affect the confidence of our stockholders, regulators and other parties and could have a material adverse effect on our business, financial condition and operating results.

***We are subject to payment-related risks if customers dispute, do not pay their invoices, or decrease their amount of spend due to unforeseen downturns in their financial condition. Any decreases or significant delays in payments could have a material adverse effect on our business, results of operations and financial condition. These risks may be heightened as a result of the COVID-19 pandemic and resulting economic downturn or customer impacts from such events or downturns, including supply chain disruptions or shortages.***

We may become involved in disputes with our customers over the operation of our platform, the terms of our agreements or our billings for purchases made by them through our platform. In the past, certain customers have sought to slow their payments to us or been forced into filing for bankruptcy protection, resulting in delay or cancelation of their pending payments to us. These challenges were exacerbated by the COVID-19 pandemic and resulting economic impact, and a number of our customers experienced financial difficulties and liquidity constraints and may continue to do so in the future. In certain cases, customers have been unable to timely make payments, and we have suffered losses. Certain of our contracts with marketing agencies state that if their customer does not pay the agency, the agency is not liable to us, and we must seek payment solely from their customer, a type of arrangement called sequential liability. Contracting with these agencies, which in some cases have or may develop higher-risk credit profiles, may subject us to greater credit risk than if we were to contract directly with the customer.

Further, some of our customers are dependent on a worldwide supply chain for materials or products. Government orders or restrictions, rising transportation costs, inflation and interest rates, can impact the availability or cost of materials and supplies, disrupting customer supply chains and resulting in strained financial conditions. As a result of the COVID-19 pandemic or other future pandemics, epidemics or health crises and any resulting economic downturns, our customers may experience disruptions to their supply chains and price fluctuations, which could have an adverse effect on their business and financial condition. If this continues, it may negatively affect our customers' ability to pay their invoices on a timely basis or at all.

If we are unable to collect customers' fees on a timely basis or at all, we could incur write-offs for bad debt, which could have a material adverse effect on our results of operations for the periods in which the write-offs occur. In the future, bad debt may exceed reserves for such contingencies, and our bad debt exposure may increase over time. Any increase in write-offs for bad debt could have a materially negative effect on our business, financial condition and operating results. Even if we are not paid by our customers on time or at all, we may still be obligated to pay for the inventory we have purchased for our customers' marketing campaigns, and consequently, our results of operations and financial condition would be adversely impacted.

***We may be adversely affected by the effects of inflation.***

Inflation has the potential to adversely affect our liquidity, business, financial condition and results of operations by increasing our overall cost structure, particularly if we are unable to achieve commensurate increases in the prices we charge our customers. The existence of inflation in the economy has resulted in, and may continue to result in, higher interest rates and capital costs, increased costs of labor, weakening exchange rates and other similar effects. As a result of inflation, we have experienced and may continue to experience, cost increases. Although we may take measures to mitigate the impact of this inflation, if these measures are not effective, our business, financial condition, results of operations and liquidity could be materially adversely affected. Even if such measures are effective, there could be a difference between the timing of when these beneficial actions impact our results of operations and when the cost of inflation is incurred.

***If we fail to innovate and make the right investment decisions in our product offerings and platform, we may not attract and retain customers and our revenue and results of operations may decline.***

Our industry is subject to rapid and frequent changes in technology, evolving customer needs and the frequent introduction by our competitors of new and enhanced offerings. We must regularly make investment decisions regarding offerings and technology to maintain the technological competitiveness of our products and platform and meet customer demand and evolving industry standards. As we continue to grow and attract a broader customer base, we will have to invest more time and effort to maintain a certain level of performance in our products and platform.

The complexity and uncertainty regarding the development of new technologies and the extent and timing of market acceptance of innovative products and solutions create difficulties in maintaining this competitiveness. The success of any enhancement or new solution depends on many factors, including timely completion, adequate quality testing, appropriate introduction and market acceptance. If our competitors are able to orientate their product to meet the specific needs of a particular industry better than us, they may be able to amass market share faster than us and by consequence, reduce our current and future revenues. Without the timely introduction of new products, solutions and enhancements, our offerings could become technologically or commercially obsolete over time, in which case our revenue and operating results would suffer. New customer demands, superior competitive offerings or new industry standards could require us to make unanticipated and costly changes to our platform or business model. If we fail to enhance our current products and solutions or fail to develop new products to adapt to our rapidly changing industry or to evolving customers' needs, demand for our platform could decrease and our business, operating results and financial condition may be adversely affected.

***Future acquisitions or strategic investments could be difficult to identify and integrate, divert the attention of management and disrupt our business, dilute stockholder value and adversely affect our business, results of operations and financial condition.***

As part of our growth strategy, we may acquire or invest in other businesses, assets or technologies that are complementary to and fit within our strategic goals. Acquisitions are inherently risky and if they fail, they can result in necessary costly remediating steps such as litigation and divesture. Any acquisition or investment may divert the attention of management and require us to use significant amounts of cash, issue dilutive equity securities or incur debt. The anticipated benefits of any acquisition or investment may not be realized, and we may be exposed to unknown risks, any of which could adversely affect our business, results of operations and financial condition, including risks arising from:

- difficulties in integrating the operations, technologies, product or service offerings, administrative systems and personnel of acquired businesses, especially if those businesses operate outside of our core competency or geographies in which we currently operate;
- ineffectiveness or incompatibility of acquired technologies or solutions;
- potential loss of key employees of the acquired businesses;
- inability to maintain key business relationships and reputations of the acquired businesses;
- diversion of management attention from other business concerns;
- litigation arising from the acquisition or the activities of the acquired businesses, including claims from terminated employees, customers, former stockholders or other third parties and intellectual property disputes;
- assumption of contractual obligations that contain terms that are not beneficial to us, require us to license or waive intellectual property rights, or increase our risk of liability;
- complications in the integration of acquired businesses or diminished prospects;
- failure to generate the expected financial results related to an acquisition on a timely manner or at all;
- weak, ineffective, or incomplete data privacy compliance strategies by the acquired company resulting in our inability to use acquired data assets;
- failure to accurately forecast the financial or other business impacts of an acquisition; and
- implementation or remediation of effective controls, procedures and policies for acquired businesses.

To fund future acquisitions, we may pay cash, which would diminish our cash reserves, or issue additional shares of our Class A common stock, which could dilute current stockholders' holdings in our company. Borrowing to fund an acquisition would result in increased fixed obligations and could also subject us to covenants or other restrictions that could limit our ability to effectively run our business.

***Our use and reliance upon technology and development resources in India may expose us to unanticipated costs and liabilities, which could affect our ability to realize cost savings from our technology operations in India and other non-U.S. locations.***

We conduct a significant amount of our technology and product development work in India and other global locations. We cannot ensure that our reliance upon development resources in India and other non-U.S. locations will enable us to achieve meaningful cost reductions or greater resource efficiency. Further, our operations in India involve significant risks, including:

- difficulty hiring and retaining engineering and management resources due to intense competition for such resources and resulting wage inflation;
- heightened exposure to changes in economic, security and political conditions;
- different standards of protection for intellectual property rights and confidentiality protection;
- the effects of the COVID-19 pandemic or any other pandemics, epidemics or other health crises on general health and economic conditions; and
- fluctuations in currency exchange rates and tax compliance.

The enforcement of intellectual property rights and confidentiality protections in India may not be as effective as in the U.S. or other countries. Policing unauthorized use of proprietary technology is difficult and expensive and we might need to resort to litigation to protect our trade secrets and confidential information. The experience and capabilities of Indian courts in handling intellectual property litigation vary, and outcomes are unpredictable. Further, such litigation may require significant expenditure of cash and management efforts and could harm our business, financial condition and results of operations. An adverse determination in any such litigation will impair our intellectual property rights and may harm our business, results of operations and financial condition.

We expect to continue to rely on significant cost savings obtained by concentrating our technology and development and engineering work in India and other non-U.S. locations, but difficulties resulting from the factors noted above and other risks related to our operations in India or such other non-U.S. locations could increase our expenses and harm our competitive position. The historical rate of wage inflation has been higher in India than in the U.S. In addition, if the Rupee strengthens against the U.S. Dollar, our costs would increase. If the cost of technology and development work in India significantly increases or the labor environment in India changes unfavorably, our cost savings may be diminished. Any such developments could adversely affect our business, results of operations and financial condition.

***Our business is subject to the risk of catastrophic events such as pandemics, earthquakes, flooding, droughts, fire and power outages, and to business and operational interruption by man-made problems such as terrorism.***

Our business is vulnerable to damage or interruption from pandemics, earthquakes, extreme weather events, flooding, droughts, fire, power outages, telecommunications failures, terrorist attacks, acts of war, human errors, break-ins and similar events. A significant natural disaster could have a material adverse effect on our business, results of operations and financial condition, and our insurance coverage may be insufficient to compensate us for losses that we may incur. As we rely heavily on our data center facilities, computer and communications systems and the Internet to conduct our business and provide high-quality customer service, these disruptions could negatively impact our ability to run our business and either directly or indirectly disrupt publishers' and partners' businesses, which could have an adverse effect on our business, results of operations and financial condition. In particular, the COVID-19 pandemic, including the reactions of governments, markets and the general public, has resulted in a number of adverse consequences for our business, results of operations and financial condition, many of which are beyond our control. Future actions taken by governmental bodies, regulatory authorities and other third parties as a result of the COVID-19 pandemic or any other pandemics, epidemics or other health crises are highly uncertain in both scope and impact, and the negative effects of such actions may exacerbate the other risks mentioned in this section.

***Our international operations subject us to additional costs and risks, and may not yield returns, and our continued international expansion may not be successful.***

We have entered into several international markets and expect to enter into additional markets in the future. We expect to continue to expand our international operations, which may require significant management attention and financial resources and may place burdens on our management, administrative, operational, legal and financial infrastructure. The costs and risks inherent in conducting business internationally include:

- difficulty and costs associated with maintaining effective controls at foreign locations;
- adapting our platform and solutions to non-U.S. customer preferences and customs;
- difficulties in staffing and managing foreign operations;
- difficulties in enforcing our intellectual property rights;
- new and different sources of competition;
- regulatory and other delays and difficulties in setting up foreign operations;
- compliance with anti-bribery laws, such as the U.S. Foreign Corrupt Practices Act and the United Kingdom ("UK") Anti-Bribery Act 2010, by us, our employees and our business partners;
- compliance with export and import control and economic sanctions, laws and regulations, such as those administered by the U.S. Office of Foreign Assets Control;
- compliance with foreign data privacy laws, such as the EU ePrivacy Directive, GDPR, UK data protection laws, and Brazil's General Data Protection Law ("LGPD")which could materially diminish our ability to collect data and/or the effectiveness of our platform;
- restrictions on the transfers of funds;
- currency exchange rate fluctuations and foreign exchange controls;
- economic and political instability in some countries;
- compliance with the laws of numerous taxing jurisdictions where we conduct business, potential double taxation of our international earnings, and potentially adverse tax consequences due to changes in applicable U.S. and foreign tax laws; and
- the complexity and potential adverse consequences of U.S. tax laws as they relate to our international operations.

As we continue to expand our business globally, our success will depend, in large part, on our ability to anticipate and effectively manage these risks. These factors and others could harm our ability to increase international revenues and, consequently, could adversely affect our business, results of operations and financial condition. The expansion of our existing international operations and entry into additional international markets will require significant management attention and financial resources. Our failure to manage these risks successfully could adversely affect our business, results of operations and financial condition.

***The ongoing COVID pandemic has in the past and may continue to materially and adversely impact and disrupt our business, financial performance, results of operations and cash flows. Further, the impact of any future epidemics, pandemics or other public health crises could have a significant negative impact on our and our customers', suppliers' or other partners' business, results of operations and financial condition.***

The COVID-19 pandemic has negatively impacted our business and financial performance, and we are uncertain how it will continue to impact us. Any resurgences or variants of the virus or other epidemics, pandemics or health crises could have a material negative impact on economic and market conditions around the world, which could have a significant negative impact on our and our customers, suppliers' or other partners' business, results of operations and financial condition. The extent to which the COVID-19 pandemic has impacted, and may continue to impact, or the extent to which other epidemics, pandemics or health crises may impact, our customers, suppliers, other business partners and our operational and financial performance remains uncertain and will depend on many factors outside our control, including: rising inflation and supply chain issues; the timing, extent, trajectory and duration of the pandemic, epidemic or other health crises; the emergence of new variants; the development, availability, distribution and effectiveness of vaccines and treatments; public safety measures; and the impact of any pandemic, epidemics or other health crises on the global economy. To the extent the COVID-19 pandemic has adversely affected, and may continue to affect, our business, results of operations, financial condition and stock price, it may also heighten many of the other risks described in this Part I, Item 1A of this Annual Report on Form 10-K.

**Risks Related to Our Indebtedness, Liquidity and Financial Position**

***Interest rate fluctuations may affect our results of operations and financial condition.***

Because a substantial portion of our debt is variable-rate debt, fluctuations in interest rates could have a material effect on our business. We incur higher interest costs if interest rates increase. Interest rates were at historic lows during 2020 and 2021, when the United States Federal Reserve took several steps to protect the economy from the impact of the COVID-19 pandemic, including reducing interest rates to new historic lows. In 2022, the United States Federal Reserve raised interest rates and signaled that further increases are expected in the near future. Any such increase in interest costs could have a material adverse impact on our financial condition and the levels of cash we maintain for working capital.

***We may need additional capital in the future to meet our financial obligations and to pursue our business objectives. Additional capital may not be available on favorable terms, or at all, which could compromise our ability to meet our financial obligations and grow our business.***

We may need to raise additional capital to fund operations in the future or to finance acquisitions or other business objectives. Such additional capital may not be available on favorable terms or at all. Lack of sufficient capital resources could significantly limit our ability to meet our financial obligations or to take advantage of business and strategic opportunities. Any additional capital raised through the sale of equity or convertible debt securities would dilute stock ownership, and any new equity securities we issue could have rights, preferences and privileges superior to those of holders of our Class A common stock. Any debt financing we secure in the future could involve restrictive covenants relating to our capital raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions. If we are unable to obtain adequate financing or financing on terms satisfactory to us when we require it, we may be required to delay, reduce the scope of, or eliminate material parts of our business strategy, including potential additional acquisitions or development of new technologies and geographic expansion.

***Our loan agreement contains operating and financial covenants that may restrict our business and financing activities.***

As of the date hereof, we had $185.0 million outstanding under our loan and security agreement (“Senior Secured Credit Facility”) with Bank of America, N.A., dated February 3, 2021. Borrowings under this agreement are secured by substantially all of our assets. For more information on our outstanding long-term borrowings, see Note 11 to our consolidated financial statements. This Senior Secured Credit Facility also restricts our ability, without the lender’s written consent, to, among other things:

- dispose of or sell our assets;
- make material changes in our business or management;
- consolidate or merge with other entities;
- incur additional indebtedness;
- create liens on our assets;
- pay dividends;
- make investments;
- enter into transactions with affiliates; and
- pay off or redeem subordinated indebtedness.

In addition, our Senior Secured Credit Facility contains customary minimum quarterly financial maintenance covenants.

The operating and financial restrictions and covenants in the Senior Secured Credit Facility, as well as any future financing arrangements that we may enter into, may restrict our ability to finance our operations, engage in, expand, or otherwise pursue our business activities and strategies. Our ability to comply with these or other covenants may be affected by events beyond our control, and future breaches of these or other covenants could result in a default under the Senior Secured Credit Facility. If not waived, future defaults could cause all of the outstanding indebtedness under the Senior Secured Credit Facility to become immediately due and payable and our access to further credit under the Senior Secured Credit Facility may terminate. If we do not have or are unable to generate sufficient cash to repay our debt obligations when they become due and payable, either upon maturity or in the event of a default, we would be required to obtain additional debt or equity financing, which may not be available on favorable terms, or at all, which may negatively impact our ability to operate and continue our business as a going concern.

**Risks Related to Certain Tax Matters**

***Our tax liabilities may be greater than anticipated.***

The U.S. and non-U.S. tax laws applicable to our business activities are subject to interpretation and are changing. We are subject to audit by the Internal Revenue Service and by taxing authorities of the state, local and foreign jurisdictions in which we operate. Our tax obligations are based in part on our corporate operating structure, including the manner in which we develop, value, use and hold our intellectual property, the jurisdictions in which we operate, how tax authorities assess revenue-based taxes such as sales and use taxes, the scope of our international operations, and the value we ascribe to our intercompany transactions. Taxing authorities may challenge our tax positions and methodologies for valuing developed technology or intercompany arrangements, positions regarding the collection of sales and use taxes, and the jurisdictions in which we are subject to taxes, which could expose us to additional taxes. Any adverse outcomes of such challenges to our tax positions could result in additional taxes for prior periods, interest and penalties, as well as higher future taxes.

In addition, our future tax expense could increase as a result of changes in tax laws, regulations or accounting principles, or as a result of earnings income in jurisdictions that have higher tax rates. For example, for tax years beginning after December 31, 2021, the Tax Cuts and Jobs Act of 2017 eliminates the option to deduct research and development expenditures currently and instead requires taxpayers to amortize such expenditures over five tax years. More recently, on August 16, 2022, the U.S. enacted the Inflation Reduction Act introducing, among other changes, a 15% corporate minimum tax on certain U.S. corporations and a 1% excise tax on certain stock redemptions by U.S. corporations. We are currently unable to predict the ultimate impact of the Inflation Reduction Act on our business, results of operations and financial condition. Moreover, the determination of our provision for income taxes and other tax liabilities requires significant estimates and judgment by management, and the tax treatment of certain transactions is uncertain. Any changes, ambiguity, or uncertainty in taxing jurisdictions' administrative interpretations, decisions, policies and positions, including the position of taxing authorities with respect to revenue generated by reference to certain digital services, could also materially impact our income tax liabilities. Although we believe we will make reasonable estimates and judgments, the ultimate outcome of any particular issue may differ from the amounts previously recorded in our financial statements and any such occurrence could adversely affect our business, results of operations and financial condition.

***Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.***

We have incurred substantial net operating losses ("NOLs") during our history. Under the rules of Sections 382 and 383 of the Internal Revenue Code of 1986, as amended (the "Code"), if a corporation undergoes an "ownership change," generally defined as a greater than 50 percentage point change (by value) in its equity ownership over a rolling three-year period, the corporation's ability to use its pre-change NOLs and other pre-change tax attributes to offset its post-change taxable income may be limited. The applicable rules generally operate by focusing on changes in ownership among stockholders considered by the rules as owning, directly or indirectly, 5% or more of the stock of a corporation, as well as changes in ownership arising from new issuances of stock by the corporation. If finalized, Treasury Regulations currently proposed under Section 382 of the Code may further limit our ability to utilize our pre-change NOLs or other pre-change tax attributes if we undergo a future ownership change. We may have experienced ownership changes in the past and could experience one or more ownership changes in the future as a result of future changes in our stock ownership, some of which changes may be outside our control. Similar provisions of state tax law may also apply to our state NOLs. As a result, if we earn net taxable income, our ability to use our pre-change NOL carryforwards to offset post-change taxable income may be subject to limitations. For these reasons, we may not be able to utilize a material portion of our NOLs and other tax attributes, which could adversely affect our future cash flows.

**Risks Related to Data Collection and Security, Intellectual Property and Technology Industry Regulations**

***Our business and the effectiveness of our platform depends on our ability to collect and use online data. New tools used by consumers to limit data collection, regulatory restrictions and potential changes to web browsers and mobile operating systems affect our ability to collect such data, which could harm our operating results and financial condition.***

We have one of the largest compilations of personal data relating to U.S. and international consumers in the world. The ability of our platform to deliver high quality solutions to our customers is based on our technology's capability to derive relevant, actionable insights from the data that we ingest into our systems and our ability to execute marketing programs across digital channels such as email, social media, website and other touchpoints to engage consumers. The principal way that we collect individual opted-in data is directly from the consumers when they register or interact with our platform (such as the DISQUS commenting system), or with partners' services. We also use various tracking technologies, both proprietary and those provided through third-party suppliers in order to connect to individuals across marketing channels for the purpose of targeting consumers and delivering campaigns. The future of these and other digital data collection practices is evolving, with some prominent companies in the industry recently announcing that they will implement their own individual data collection tools and phase out others. This approach may or may not be compatible with our current operations in those channels and platforms. It is yet to be determined if there will be an industry-wide framework for targeting consumers in a digital environment. Furthermore, regulatory and legislative actions may influence which data

collection tools are permitted in various jurisdictions and may further restrict our data collection efforts. Without this incremental data, we may not have sufficient insight into the consumer's activity to provide some of our current tools, which may impact our capacity to execute our customers' programs efficiently and effectively.

Consumers can, with increasing ease, implement technologies that limit our ability to collect and use data to track and deliver our solutions across different marketing channels and platforms. Various digital tracking tools may be deleted or blocked by consumers. The most commonly used internet browsers also allow consumers to modify their browser settings to block first-party cookies (placed directly by the publisher or website owner that the consumer intends to interact with), which are not affected by changes from web browsers and operating systems, or third-party cookies (placed by parties that do not have direct relationship with the consumer), which some browsers may block by default. Mobile devices using Android and iOS operating systems limit the ability of cookies, or similar technology, to track consumers while they are using applications other than their web browser on the device. Even if cookies and ad blockers do not ultimately have an adverse effect on our business, investor concerns about the utility and robustness of these tracking technologies could limit demand for our stock and cause its price to decline.

We also partner with third-party data suppliers and publishers. When we purchase or license from third-party data suppliers, we are dependent upon our ability to obtain such data on commercially reasonable terms and in compliance with applicable regulations. If a substantial number of data suppliers were to withdraw or withhold their data from us, or if we had to terminate our ties with data suppliers either due to commercial or regulatory reasons, our ability to provide products to our customers could be materially adversely impacted, which could result in decreased revenues and operating results. We cannot provide assurance that we will be successful in maintaining our relationships with these external data source providers or that we will be able to continue to obtain data from them on acceptable terms or at all. Furthermore, we cannot provide assurance that we will be able to obtain data from alternative sources if our current sources become unavailable.

***The standards that private entities and inbox service providers adopt in the future to regulate the use and delivery of email may interfere with the effectiveness of our platform and our ability to conduct business.***

Our business is dependent on email services for promoting our customers' brands, products and services. Other private entities often advocate standards of conduct or practices that significantly exceed current legal requirements and classify certain solicitations that comply with current legal requirements as impermissible "spam." Some of these entities maintain "blacklists" of companies and individuals, and the websites, inbox service providers and IP addresses associated with those entities or individuals that do not adhere to those standards of conduct or practices for commercial solicitations that the blacklisting entity believes are appropriate. If a company's IP addresses are listed by a blacklisting entity, emails sent from those addresses may be blocked if they are sent to any internet domain or internet address that subscribes to the blacklisting entity's service or uses its blacklist.

From time to time, some of our IP addresses have become, and we expect will continue to be, listed with one or more blacklisting entities due to the messaging practices of our customers and other users. We may be at an increased risk of having our IP addresses blacklisted due to our scale and volume of emails processed, compared to our smaller competitors. While the overall percentage of such email solicitations that our individual customers send may be at or below reasonable standards, the total aggregate number of all emails that we process on behalf of our customers may trigger increased scrutiny from these blacklisting entities. There can be no guarantee that we will be able to successfully remove ourselves from those lists. Because we fulfill email delivery on behalf of our customers, blacklisting of this type could undermine the effectiveness of our customers' transactional email, email marketing programs and other email communications, all of which could have a material negative impact on our business, financial condition and results of operations.

Inbox service providers can also block emails from reaching their users. While we continually improve our own technology and work closely with inbox service providers to maintain our deliverability rates, the implementation of new or more restrictive policies by inbox service providers may make it more difficult to deliver our customers' emails, particularly if we are not given adequate notice of a change in policy or struggle to update our platform to comply with the changed policy in a reasonable amount of time. In addition, some inbox service providers categorize as "promotional" emails that originate from email service providers and, as a result, direct them to an alternate or "tabbed" section of the recipient's inbox. If inbox service providers materially limit or halt the delivery of our customers' emails, or if we fail to deliver our customers' emails in a manner compatible with inbox service providers' email handling or authentication technologies or other policies, or if the open rates of our customers' emails are negatively impacted by the actions of inbox service providers to categorize emails, then customers may question the effectiveness of our platform and cancel their accounts.

Additionally, changes in the laws or regulations that limit our ability to send such communications or impose additional requirements upon us in connection with sending such communications would also materially adversely impact our business. For example, Canada's Anti-Spam Legislation ("CASL") prohibits email marketing without the recipient's consent, with limited

exceptions. In addition, electronic marketing and privacy requirements in the EU are highly restrictive and differ greatly from those currently in force in the U.S., which could cause fewer individuals in the EU to subscribe to our marketing messages and drive up our costs and risk of regulatory oversight and fines if we are found to be non-compliant. These restrictions could prevent us from obtaining enough data to produce effective marketing results for our customers in these markets. Our use of email and other messaging services to send communications to consumers may also result in legal claims against us, for which we may incur increased expenses, and if successful might result in fines and orders with costly reporting and compliance obligations or might limit or prohibit our ability to send emails or other messages. We also rely on social networking messaging services to send communications and to encourage consumers to send communications. Changes to the terms of these social networking services to limit promotional communications, any restrictions that would limit our ability or our customers' ability to send communications through their services, disruptions or downtime experienced by these social networking services or decline in the use of or engagement with social networking services by our customers' end consumers could materially and adversely affect our business, financial condition and operating results.

***If we fail to detect or prevent fraud or malware intrusion on our platform, devices, or systems, or into the systems or devices of our customers and their consumers, publishers could lose confidence in our platform, and we could face legal claims, any of which could adversely affect our business, results of operations and financial condition.***

We may be the target of fraudulent or malicious activities undertaken by persons seeking to use our platform for improper purposes. For example, someone may attempt to divert or artificially inflate customer purchases through our platform, or attempt to disrupt or divert the operation of the systems and devices of our publishers and their consumers in order to misappropriate information, generate fraudulent billings or stage cyberattacks, or other unauthorized or illicit purposes. Those activities could also introduce malware through our platform in order to commandeer or gain access to confidential information or personal information. We use third-party tools and proprietary technology to identify non-human traffic and malware, and we may reduce or terminate relationships with customers that we find to be engaging in such activities. Perpetrators of fraudulent impressions and malware frequently change their tactics and may become more sophisticated over time, requiring both us and third parties to improve processes for assessing the quality of publisher inventory and controlling fraudulent activity. In the meantime, new or changing data privacy laws (in particular outside the EU and the U.S.) could potentially interfere with the data collection required in order to detect fraud. If we fail to detect or prevent fraudulent or malicious activity of this sort, our reputation could be damaged, customers may contest payment, demand refunds or fail to give us future business, or we could face legal claims or investigations from customers or regulators. Even if we are not directly involved in fraud or malicious activity, any sustained failures of others in our industry to adequately detect and prevent fraud could generate the perception that digital marketing is unsafe and lead our customers to avoid digital marketing products like ours.

***A significant inadvertent disclosure or breach of confidential and/or personal information we process, or a security breach of our or our customers', suppliers', or other partners' computer systems could be detrimental to our business, reputation, financial performance and results of operations.***

The nature of our business means that we process large databases of personal information, including maintaining and storing large databases of such information, not only on our own behalf, but also on our customers' and others' behalf. As a result, we face heightened risk of suffering cyber-related harm such as a data breach or data being misappropriated by a malicious insider or unauthorized third party. Such parties could attempt to gain entry to our systems (including by gaining employment at Zeta) for the purpose of stealing data, including confidential information or personal information, or breaching our security systems. In particular, we, like other organizations, especially in the digital marketing industry and marketing technology industry, are routinely subject to attempts by such malicious actors (e.g., cybersecurity threats, attempted data privacy breaches, or other incidents), which if successful, may result in either threatened or actual exposure leading to unauthorized access, disclosure and misuse of confidential information, personal information or other information regarding customers, suppliers, partners, vendors, employees, or our company and business..

Even where we have invested in industry standard security, a breach may be due to employee error, malfeasance, system errors or vulnerabilities, including vulnerabilities of our customers, vendors, suppliers, their products, or otherwise. Third parties may also attempt to fraudulently induce employees to disclose sensitive information or credentials that permit access to sensitive information through a process known as social engineering. This includes disclosing data such as usernames, passwords or other information to gain access to our customers' data or our data, including intellectual property and other confidential information. Third parties and malicious actors also may attempt to extort us through a ransomware or other similar form of attack by encrypting information systems, rendering our information systems inoperable, or stealing intellectual property, confidential information, personal information, or other sensitive data, and demanding payment in return. Techniques used to obtain unauthorized access to, or sabotage IT systems, change frequently, grow more complex over time, and often are not recognized until launched against a target. Given the unpredictability of the timing, nature and scope of cybersecurity attacks and other security-related incidents, our technology may fail to adequately secure the data, including confidential information and personal information we maintain, and we cannot

entirely eliminate the risk of improper or unauthorized access to or disclosure of such data, other security events that impact the integrity or availability of such data, or our systems and operations and any data contained in such systems and operations. We may incur significant costs in protecting against or remediating such events, including cyber-attacks. Any security breach could result in operational disruptions that impair our ability to meet our customers' requirements, which could result in decreased revenue. We carry insurance comparable to our industry. However, we cannot guarantee that our insurance coverage will be sufficient to cover all losses.

Whether there is an actual or a perceived breach of our security, our reputation could suffer irreparable harm, causing our current and prospective customers to reject our products in the future, deterring data suppliers from supplying us data or customers from uploading their data on our platform, or changing customers' behaviors and use of our technology. Further, we could be forced to expend significant resources in response to a security breach, including those expended in notifying individuals and providing mitigating solutions, repairing system damage, increasing cyber security protection costs by deploying additional personnel and protection technologies, and litigating and resolving legal claims or governmental inquiries and investigations, all of which could divert the attention of our management and key personnel away from our business operations.

***We depend on third-party data centers, systems and technologies to operate our business, the disruption of which could adversely affect our business, results of operations and financial condition.***

We rely on data centers and third-party technology vendors in order to operate our business. Any damage to or failure of our systems generally would prevent us from operating our business. We host our company-owned infrastructure at third-party data centers. We are also dependent on third-party providers to provide industry standard protection against potential damages such as cyber intrusions, natural disasters, criminal acts and technical maintenance. In the event of damage or interruption, it is unlikely that we would be appropriately compensated for the reputational harm that such an interruption would create regardless of any damages we may recover from such third parties or any insurance policy in place. This would in turn reduce our revenue, subject us to liability and may cause us to lose customers, any of which could materially adversely affect our business.

Additionally, improving our platform's infrastructure and expanding its capacity in anticipation of growth in new channels and formats, as well as implementing technological enhancements to our platform to improve its efficiency and cost-effectiveness are key components of our business strategy, and if our third-party data centers are unable to keep up with our growing needs for capacity, this could have an adverse effect on our business. Any changes in the service levels at our third-party data centers or any errors, service interruptions, defects, disruptions, or other performance problems could adversely affect our reputation, expose us to liability, cause us to lose customers, or otherwise adversely affect our business, results of operations and financial condition. We also rely on computer hardware purchased or leased from, software licensed from, content licensed from and services provided by a variety of third parties, which include databases, operating systems, virtualization software, tax requirement content and geolocation content and services. Any errors, bugs or defects in such third-party hardware, software, content or services could result in errors or a failure of our solutions, which could harm our business. Additionally, we cannot assure you that these third-party leases or licenses, or support for such leased or licensed products and technologies, will continue to be available to us on commercially reasonable terms, if at all. We cannot be certain that our suppliers or licensors are not infringing the intellectual property rights of others or that our suppliers and licensors have sufficient rights to the technology in all jurisdictions in which we may operate. In the future, we might need to license other hardware, software, content or services to enhance our products and meet evolving customer requirements. Any inability to license or otherwise obtain such hardware or software could result in a reduction in functionality, or errors or failures of our products, until equivalent technology is either developed by us or, if available, is identified, obtained through purchase or license, and integrated into our solutions, any of which may reduce demand for our solutions and increase our expenses. In addition, third-party licenses may expose us to increased risks, including risks associated with the integration of new technology, the diversion of resources from the development of our own proprietary technology, and our inability to generate revenue from new technology sufficient to offset associated acquisition and maintenance costs, all of which may increase our expenses and harm our results of operations.

***Actual or perceived failures to comply with applicable data protection, privacy and security laws, regulations, standards and other requirements could adversely affect our business, results of operations, and financial condition.***

The global data protection landscape is rapidly evolving, and we are or may become subject to numerous state, federal and foreign laws, requirements and regulations governing the collection, use, disclosure, retention, and security of personal information. Implementation standards and enforcement practices are likely to remain uncertain for the foreseeable future, and we cannot yet determine the impact future laws, regulations, standards, or perception of their requirements may have on our business. This evolution may create uncertainty in our business, affect our ability to operate in certain jurisdictions or to collect, store, transfer use and share personal information, necessitate the acceptance of more onerous obligations in our contracts, result in liability or impose additional costs on us. The cost of compliance with these laws, regulations and standards is high and is likely to increase in the future. Any failure or perceived failure by us to comply with federal, state or foreign laws or regulations, our internal policies and procedures or our contracts governing our processing of personal information could result in negative publicity, government

investigations and enforcement actions, claims by third parties and damage to our reputation, any of which could have a material adverse effect on our operations, financial performance and business.

In the U.S., numerous state laws impose standards relating to the privacy, security, transmission and breach reporting of personal information. Such laws and regulations will be subject to interpretation by various courts and other governmental authorities, thus creating potentially complex compliance issues for us, our customers and our strategic partners. For example, the CCPA went into effect on January 1, 2020. The CCPA creates individual privacy rights for California consumers and increases the privacy and security obligations of entities handling personal information. The CCPA provides for civil penalties for violations, as well as a private right of action for data breaches suffered as a result of the business's violation of the duty to implement and maintain reasonable security procedures and practices, and this may increase data breach litigation. Further, the CPRA passed in California and significantly amends the CCPA and imposes additional data protection obligations on covered businesses, including additional consumer rights processes, limitations on data uses, new audit requirements for higher risk data, and opt outs for certain uses of sensitive data. It will also create a new California data protection agency authorized to issue substantive regulations and could result in increased privacy and information security enforcement. The majority of the provisions went into effect on January 1, 2023, requiring additional compliance investment. Similar laws have passed in Virginia, Colorado, Connecticut, and Utah, and have been proposed in other states and at the federal level, reflecting a trend toward more stringent privacy legislation in the U.S. Like the CPRA changes to the CCPA, Virginia's privacy law, the VCDPA, went into effect on January 1, 2023, and Colorado (CPA) and Connecticut's (CTDPA) laws go into effect on July 1, 2023. Finally, Utah's (UCPA) law goes into effect on December 31, 2023. Many of these new laws include a requirement to offer consumers the ability to opt out of the sale or sharing of their personal data, and to offer consumers the ability to opt out of targeted advertising. Additionally, state regulators in these states may exercise greater scrutiny regarding the collection and processing of personal information for purposes of online advertising, marketing, and analytics. These new laws and their requirements could have a material adverse effect on our financial performance, and any liability from failure to comply with the requirements of these laws could adversely affect our financial condition.

Furthermore, the Federal Trade Commission ("FTC") and many state Attorneys General continue to enforce federal and state consumer protection laws against companies for online collection, use, dissemination and security practices that appear to be unfair or deceptive. For example, according to the FTC, failing to take appropriate steps to keep consumers' personal information secure can constitute unfair acts or practices in or affecting commerce in violation of Section 5(a) of the Federal Trade Commission Act. The FTC expects a company's data security measures to be reasonable and appropriate in light of the sensitivity and volume of consumer information it holds, the size and complexity of its business, and the cost of available tools to improve security and reduce vulnerabilities. The FTC also has initiated a rulemaking regarding "Commercial Surveillance and Data Security," and even though that rule is not expected to come into effect soon, it has resulted in increased regulatory attention and scrutiny regarding the collection and processing of personal information and online advertising, marketing and analytics services.

Our communications with consumers are also subject to certain laws and regulations, including the Controlling the Assault of Non-Solicited Pornography and Marketing ("CAN-SPAM") Act of 2003, the Telephone Consumer Protection Act of 1991 (the "TCPA"), and the Telemarketing Sales Rule and analogous state laws, that could expose us to significant damages awards, fines and other penalties that could materially impact our business. For example, the TCPA imposes various consumer consent requirements and other restrictions in connection with certain telemarketing activity and other communication with consumers by phone, fax or text message. Numerous class-action suits under federal and state laws have been filed in recent years against companies who conduct telemarketing and/or SMS texting programs, with many resulting in multi-million-dollar settlements to the plaintiffs. Any future such litigation against us could be costly and time-consuming to defend. In particular, the TCPA imposes significant restrictions on the ability to make telephone calls or send text messages to mobile telephone numbers without the prior consent of the person being contacted. The CAN-SPAM Act and the Telemarketing Sales Rule and analogous state laws also impose various restrictions on marketing conducted using email, telephone, fax or text message. Additional laws, regulations, and standards covering marketing, advertising, and other activities conducted by telephone, email, mobile devices, and the internet may be or become applicable to our business, such as the Communications Act, the Federal Wiretap Act, the Electronic Communications Privacy Act, and similar state consumer protection and communication privacy laws, such as California's Invasion of Privacy Act. As laws and regulations, including FTC enforcement, rapidly evolve to govern the use of these communications and marketing platforms, the failure by us, our employees or third parties acting at our direction to abide by applicable laws and regulations could adversely impact our business, financial condition and results of operations or subject us to fines or other penalties.

Our operations abroad may also be subject to increased scrutiny or attention from data protection authorities. For example, in Europe, we are subject to the European Union General Data Protection Regulation (the "EU GDPR") and the United Kingdom's General Data Protection Regulation and the Data Protection Act 2018 (the "UK GDPR") (the EU GDPR and UK GDPR, together referred to as the "GDPR"), which impose strict requirements for processing the personal data of individuals within the EEA. Companies that must comply with the GDPR face increased compliance obligations and risk, including more robust regulatory enforcement of data protection requirements and potential fines for noncompliance. Since we are subject to the supervision of relevant data protection authorities under both the EU GDPR and the UK GDPR, we could be fined under each of these regimes independently,

in respect of the same breach. Penalties for certain breaches are up to €20 million / £17.5 million or 4% of the annual global revenues of the noncompliant company, whichever is greater. For example, in July 2021, we received a notice from Norwegian authorities of an intent to impose a fine for our alleged failure to adhere to the GDPR in their country. While we are disputing the allegation, if the Norwegian authorities determine we violated the GDPR, we may be subject to litigation and penalties, which we may not be able to reasonably estimate, and our business and reputation may be harmed. In addition to this action, EU data protection authorities are exercising increased scrutiny regarding the use of personal data for online advertising practices and the legal basis for such processing activities. Adverse rulings on these issues, even if not directly against us, may have a direct impact on our ability to continue to collect and process personal data for the services that we provide and could adversely impact our business, financial condition and results of operations or subject us and our customers and business partners to fines or other penalties.

Among other requirements, the GDPR also regulates transfers of personal data subject to the GDPR to third countries that have not been found to provide adequate protection to such personal data, including the U.S.; in July 2020, the Court of Justice of the EU ("CJEU") limited how organizations could lawfully transfer personal data from the EU/European Economic Area ("EEA")to the U.S. by invalidating the Privacy Shield for purposes of international transfers and imposing further restrictions on the use of standard contractual clauses ("SCCs"). European court and regulatory decisions subsequent to the CJEU decision have taken a restrictive approach to international data transfers. Further the European Commission published revised standard contractual clauses for data transfers from the EEA (mandatory for new transfers since September 27, 2021, and for existing transfers since December 27, 2022) and the UK Information Commissioner's Office published its own new data transfer standard contracts for data transfers from the UK (mandatory for new transfers since September 21, 2022 and for existing transfers by March 21, 2024). We have had to and may continue to have to implement revised transfer documentation for existing intragroup, customer and vendor arrangements within the relevant time frames. As supervisory authorities issue further guidance on personal data export mechanisms, including circumstances where the SCCs cannot be used, and/or start taking enforcement action, we could suffer additional costs, complaints and/or regulatory investigations or fines, and/or if we are otherwise unable to transfer personal data between and among countries and regions in which we operate, it could affect the manner in which we provide our services, the geographical location or segregation of our relevant systems and operations, and could adversely affect our financial results. In addition, in February 2022, the Belgian data protection authority found that the Interactive Advertising Bureau's (IAB) "Transparency and Consent Framework" ("TCF"), the primary consent management platform used in Europe for online advertising compliance, violates the GDPR. While this decision is being appealed, a subsequent loss of the TCF could result in increased legal risk, or a need to discontinue online advertising in Europe, which could impact our revenues.

For transfers from the EEA to the UK the European Commission has adopted an adequacy decision in favor of the United Kingdom, enabling data transfers from EU member states to the United Kingdom without additional safeguards. However, the UK adequacy decision will automatically expire in June 2025 unless the European Commission re-assesses and renews or extends that decision. We are also subject to evolving EU and UK privacy laws on cookies, tracking technologies and e-marketing. The GDPR also imposes conditions on obtaining valid consent for cookies, such as a prohibition on pre-checked consents and a requirement to ensure separate consents are sought for each type of cookie or similar technology. Recent European court and regulator decisions are driving increased attention to cookies and tracking technologies. In light of the complex and evolving nature of EU, EU Member State and UK privacy laws on cookies and tracking technologies, there can be no assurances that we will be successful in our efforts to comply with such laws; violations of such laws could result in regulatory investigations, fines, orders to cease / change our use of such technologies, as well as civil claims including class actions, and reputational damage. Such regulations may have a negative effect on businesses, including ours, that collect and use online usage information, resulting in impairments to our business activities. Changes proposed by providers of major browsers to eliminate or restrict the usage of third-party cookies to track user behaviors, and to allow users to limit the collection of certain data generally or from specified websites, could impair our ability to collect user information, including personal data and usage information, that helps us provide more targeted advertising to our current and prospective consumers. The effectiveness of our platform relies in part on our ability to collect and use online data, so these changes could adversely affect our business, given our use of cookies and similar technologies.

In Canada, the Personal Information Protection and Electronic Documents Act ("PIPEDA"), and various provincial laws require that companies give detailed privacy notices to consumers, obtain consent to use personal information, with limited exceptions, allow individuals to access and correct their personal information, and report certain data breaches. Failure to comply with PIPEDA or other Canadian provincial privacy or data protection laws could result in significant fines and penalties or possible damage awards.

Our data-driven platform may also be subject to laws and evolving regulations regarding the use of artificial intelligence and machine learning, controlling for data bias, and antidiscrimination. For example, in addition to enforcing Section 5 of the FTC Act, the FTC enforces the Fair Credit Reporting Act, and the Equal Credit Opportunity Act. These laws prohibit unfair and deceptive practices, including use of biased algorithms in artificial intelligence. The European Commission also recently published its proposal for a regulation implementing harmonized rules on artificial intelligence and amending certain union legislative acts. The proposed regulation would impose additional restrictions and obligations on providers of artificial intelligence systems, including increasing

transparency so consumers know they are interacting with an artificial intelligence system, requiring human oversight in artificial intelligence, and prohibiting certain practices of artificial intelligence that could lead to physical or psychological harm. If federal or state regulators were to determine that the type of data we collect, the process we use for collecting this data or how we use it unfairly discriminates against some groups of people, laws and regulations could be interpreted or implemented to prohibit or restrict our collection or use of this data. Additionally, existing and future laws, and evolving attitudes about privacy protection may impair our ability to collect, use, and maintain data points of sufficient type or quantity to develop and train our artificial intelligence algorithms.

Although we work to comply with applicable laws, regulations and standards, our contractual obligations and other legal obligations, these requirements are evolving and may be modified, interpreted and applied in an inconsistent manner from one jurisdiction to another, and may conflict with one another or other legal obligations with which we must comply. Any failure or perceived failure by us or our employees, representatives, contractors, consultants, collaborators, or other third parties to comply with such requirements or adequately address privacy and security concerns, even if unfounded, could result in the imposition of significant civil and/or criminal penalties, damage in our reputation, private litigation, and restrictions on data processing.

***Our intellectual property rights may be difficult to enforce and protect, which could enable others to copy or use aspects of our technology without compensating us, thereby eroding our competitive advantage and having an adverse effect on our business, results of operations and financial condition.***

Our success depends, in part, on our ability to protect proprietary methods and technologies that we develop or otherwise acquire, so that we can prevent others from using our inventions and proprietary information. If we fail to protect our intellectual property rights adequately, our competitors might gain access to our technology and our business might be adversely affected.

Policing unauthorized use of our technology is difficult and costly. In addition, the laws of some foreign countries may not be as protective of intellectual property rights as those of the U.S., and mechanisms for enforcement of our proprietary rights in such countries may be inadequate. If we are unable to protect our proprietary rights (including in particular, the proprietary aspects of our platform) we may find ourselves at a competitive disadvantage to others who have not incurred the same level of expense, time and effort to create, protect and enforce their intellectual property.

We rely upon a combination of trade secrets, third-party confidentiality and non-disclosure agreements, additional contractual protections including those in agreements with business partners and customers, and trademark, copyright, patent and other intellectual property laws to establish and protect our proprietary technology and intellectual property rights. Establishing, maintaining and enforcing intellectual property rights can be difficult, time consuming, and expensive and despite our efforts to establish and maintain our intellectual property, the applicable laws may provide only a limited scope of protection. It may be possible for unauthorized third parties to copy or reverse engineer aspects of our technology or otherwise obtain and use information that we regard as proprietary, or to develop technologies similar or superior to our technology or design around our proprietary rights, despite the steps we have taken to protect our proprietary rights. Our trade secrets, know-how and other proprietary information may be stolen, used in an unauthorized manner, or compromised through an intrusion by private parties or foreign actors into our computer systems. In addition, theft or misuse of our proprietary information could still occur by employees or contractors who have access to our technology despite the agreements we have in place with such employees and contractors that restrict the use and disclosure of our information and technology and although we enter into non-disclosure agreements with our customers, consultants, suppliers and other parties with whom we have strategic relationships and business alliances and enter into intellectual property assignment agreements with our consultants and suppliers, no assurance can be given that these agreements will not be breached.

While we have issued patents and have patent applications pending, we may be unable to obtain patent protection for the technology covered in our patent applications or such patent protection may not be obtained quickly enough to meet our business needs. Furthermore, the patent prosecution process is expensive, time-consuming and complex, and we may not be able to prepare, file, prosecute, maintain and enforce all necessary or desirable patent applications at a reasonable cost or in a timely manner. The scope of patent protection also can be reinterpreted after issuance and issued patents may be invalidated. Even if our patent applications do issue as patents, they may not issue in a form that is sufficiently broad to protect our technology, prevent competitors or other third parties from competing with us or otherwise provide us with any competitive advantage.

***We may be subject to intellectual property rights claims by third parties, which are costly to defend, could require us to pay significant damages and could limit our ability to use technology or intellectual property.***

We operate in an industry with an extensive history of intellectual property litigation. There is a risk that our business, platform and solutions may infringe or be alleged to infringe the trademarks, copyrights, patents and other intellectual property rights of third parties, including patents held by our competitors or by non-practicing entities. We may also face allegations that our employees have misappropriated or divulged the trade secrets or other confidential information of their former employers or other

third parties. Regardless of whether any of these claims have any merit, evaluating and defending these claims is costly, time consuming, and diverts management attention and financial resources. Results of these litigation matters are difficult to predict and we may not be successful in defending ourselves in such matters. If our defense is unsuccessful, we may be required to stop offering some features, purchase licenses, which may not be available on favorable terms or at all, or modify our technology or our platform while we develop non-infringing substitutes, or incur significant settlement costs. Additionally, we may be obligated to indemnify our customers or inventory and data suppliers in connection with any such litigation. Any of these events could have an adverse effect on our business, results of operations and financial condition.

***Our failure to meet content and inventory standards and provide products that our customers and third-party suppliers trust, could harm our brand and reputation and negatively impact our business, operating results and financial condition.***

We do not provide or control either the content of the advertisements we serve or that of the websites providing the inventory. Our customers provide the content and third-party suppliers provide the inventory. Both marketers and third-party suppliers are concerned about being associated with content they consider inappropriate, competitive or inconsistent with their brands, or illegal and they are hesitant to spend money without guaranteed brand security. Additionally, our customers may seek to display marketing campaigns in jurisdictions that do not permit such campaigns. Our customers and third-party suppliers will often include provisions in their contracts that restrict the type of content that can be run in marketing campaigns. Inadvertently, we may serve such restricted ad content, or the advertisements we serve may contain malware, which could harm our or our customers' brand and reputation, harm our relationships with our inventory suppliers and negatively impact our business, financial condition and operating results. Accordingly, a part of our business strategy is our ability to convince our customers that their brand and image are safe within our ecosystem. While we have established rules and guidance on how our platform is to be used, including prohibiting the display of content that is illegal, and we also utilize third party software that looks for malware in all of our marketing campaigns, we cannot guarantee that we will be able to capture all violating media before it is posted. It is therefore possible that our customers may run a campaign that does not conform to our standards. If this were to happen, we may be liable to the customer for damages and incur costs associated with remediating the issue. Further, if this were to happen it could harm our and/or our customers' brand and reputation, and negatively impact our business, financial condition and operating results.

Additionally, marketing may result in litigation relating to copyright or trademark infringement, public performance royalties or other claims based on the nature and content of advertising that is distributed through our platform. Though we contractually require our customers to represent to us that they have the rights necessary to serve advertisements through our platform, we do not independently review or verify whether we are permitted to deliver, such advertisements. If any of our customers' representations turn out to be inaccurate, we may be exposed to potential liability and our reputation may be damaged. While our customers are typically obligated to indemnify us, such indemnification may not fully cover us, or we may not be able to collect the amounts owed to us. In addition to settlement costs, we may be responsible for our own litigation costs, which can be extensive.

***Our platform relies on third-party open source software components. Failure to comply with the terms of the underlying open source software licenses could expose us to liabilities, and the combination of open source software with code that we develop could compromise the proprietary nature of our platform.***

Our platform utilizes software licensed to us by third-party authors under "open source" licenses and we expect to continue to utilize open source software in the future. The use of open source software may entail greater risks than the use of third-party commercial software, as open source licensors generally do not provide warranties or other contractual protections regarding infringement claims or the quality of the code. To the extent that our platform depends upon the successful operation of the open source software we use, any undetected errors or defects in this open source software could prevent the deployment or impair the functionality of our platform, delay new solution introductions, result in a failure of our platform and injure our reputation. For example, undetected errors or defects in open source software could render it vulnerable to breaches or security attacks, and, in conjunction, make our systems more vulnerable to data breaches.

Furthermore, some open source licenses require that proprietary source code combined with, linked to or distributed with such open source software be released to the public, and may also prohibit charging fees for the use of the software. If we combine, link or distribute our proprietary software with open source software in a specific manner, we could, under some open source licenses, be required to release the source code of our proprietary software to the public. This could also preclude us from charging license fees. This would allow our competitors to create similar solutions with lower development effort and time and ultimately put us at a competitive disadvantage.

***Any unfavorable publicity or negative public perception of current data collection practices could result in additional regulations which may impact the effectiveness of our data cloud and platform.***

The growth of the digital marketing industry has led to increased scrutiny from consumer groups, government agencies and news organizations. Any future negative publicity about the digital marketing industry as a whole or about an individual actor

could result in government agencies playing a more active role in regulating and enforcing rules that relate to the collection, use, sharing and disclosure of data. For example, in recent years, consumer advocates, mainstream media and elected officials have increasingly and publicly criticized the digital marketing industry for its collection, storage and use of data.

As we process transactions through our platform, we collect large amounts of data about consumers and advertisements that we place. We collect data on ad specifications (such as placement, size and format), pricing and auction activity (such as price floors, bid response behavior and clearing prices). Further, we collect data on consumers that does not directly identify the individual (although considered personal information under the CCPA and other US laws, GDPR, and other laws), including browser, device location and characteristics, online browsing behavior, exposure to and interaction with advertisements, and inferential data about purchase intentions and preferences. Data providers also send us proprietary data, including data about consumers. We aggregate this data and analyze it in order to enhance our product, including the pricing, placement and scheduling of advertisements. Evolving regulatory standards could place restrictions on the collection, management, aggregation and use of the types of data we collect, which could result in a material increase in the cost of collecting or otherwise obtaining certain kinds of data and could limit the ways in which we may use or disclose data. In addition, regulations such as the GDPR permit data protection authorities to impose penalties for violations. Any new and unforeseen regulatory limitations on our operations could impair our ability to deliver effective solutions to our customers, which could adversely affect our business, results of operations and financial condition.

***The technology industry is subject to increasing scrutiny that could result in U.S. government actions that could negatively affect our business.***

We may face claims relating to the information or content that is made available through our platform. Though we contractually require our customers to represent that they will follow our policies with respect to all information or content they upload to our systems, we may be exposed to potential liability if our customers do not abide by such policies. In particular, the nature of our business may expose us to claims related to defamation, dissemination of misinformation or news hoaxes, discrimination, harassment, intellectual property right infringement, rights of publicity and privacy, personal injury torts, laws regulating hate speech or other types of content, and breach of contract, among others. The technology industry is subject to intense media, political and regulatory scrutiny, including on issues related to antitrust and artificial intelligence, which exposes us to government investigations, legal actions and penalties. For instance, various regulatory agencies, including competition and consumer protection authorities, have active proceedings and investigations concerning multiple technology companies on antitrust and other issues. If we become subject to such investigations, we could be liable for substantial fines and penalties, be required to change our products or alter our business operations, receive negative publicity, or be subject to civil litigation, all of which could harm our business. Lawmakers also have proposed new laws and regulations, and modifications to existing laws and regulations, that affect the activities of technology companies such as the recent efforts to eliminate or modify Section 230 of the Communications Decency Act. If such laws and regulations are enacted or modified, they could negatively impact us, even if they are not specifically intended to affect our company. In addition, the introduction of new products, expansion of our activities in certain jurisdictions, or other actions that we may take may subject us to additional laws, regulations and other scrutiny. The increased scrutiny of certain acquisitions in the technology industry also could affect our ability to enter into strategic transactions of our own or to acquire other businesses.

Compliance with new or modified laws and regulations could increase the cost of conducting our business, limit the opportunities to increase our revenues, or prevent us from offering certain products and services. While we have adopted policies and procedures designed to ensure compliance with applicable laws and regulations, there can be no assurance that our employees, contractors or agents will not violate such laws and regulations. If we are found to have violated laws and regulations, it could materially adversely affect our reputation, financial condition and operating results. We also could be harmed by government investigations, litigation, or changes in laws and regulations directed at our customers, business partners, or suppliers in the technology industry that would have the effect of limiting our ability to do business with those entities. There can be no assurance that our business will not be materially adversely affected, individually or in the aggregate, by the outcomes of such investigations, litigation or changes to laws and regulations in the future.

***Failure to comply with industry self-regulation could adversely affect our business, results of operations and financial condition.***

In addition to complying with government regulations, we participate in trade associations and industry self-regulatory groups that promote best practices or codes of conduct addressing data privacy. We also have agreed to follow certain practices as contractual obligations to customers (e.g. marketing agencies). We are a member of the Digital Advertising Alliance's ("DAA") Self-Regulatory Principles for Online Behavioral Advertising in the U.S., as well as the Digital Advertising Alliance of Canada ("DAAC") in Canada and the European Interactive Digital Advertising Alliance ("EDAA") in Europe. Under the rules of these bodies, in addition to other compliance obligations, we are required to participate in the AdChoices program (and other similar programs), which provides consumers a single online interface to obtain information about and manage data collection by online third parties such as us. These bodies investigate non-compliance and report significant instances of non-compliance to regulatory authorities such as the FTC

or data protection authorities in Europe. As new legislation comes into effect, such as the CPRA, self-regulatory programs may change their requirements based on such new legislation, which adds complexity and costs for companies to maintain compliance. If we fail to keep up with or to properly implement such changes, we could become subject to regulatory investigations, fines and legally-mandated corrective actions.

**Risks Related to Public Reporting Matters and An Investment in Our Class A Common Stock**

***The nature of our business requires the application of accounting guidance that requires management to make estimates and assumptions. Reported results under GAAP may vary from key metrics used to measure our business. Additionally, changes in accounting guidance may cause us to experience greater volatility in our quarterly and annual results.***

We prepare our consolidated financial statements to conform to United States Generally Accepted Accounting Principles ("GAAP"). These accounting principles are subject to interpretation by the SEC, Financial Accounting Standards Board ("FASB"), and various bodies formed to interpret and create accounting rules and regulations. Accounting standards, such as ASC 606—Revenue from Contracts with Customers or ASC 842—Leases, or the guidance relating to interpretation and adoption of standards could have a significant effect on our financial results and could affect our business. Additionally, the FASB and the SEC are focused on the integrity of financial reporting, and our accounting policies are subject to scrutiny by regulators and the public.

We cannot predict the impact of future changes to accounting principles or our related accounting policies on our financial statements going forward. In addition, were we to change our accounting estimates, including those related to the timing of revenue recognition and those used to allocate revenue between various performance obligations, our reported revenue and results of operations could be significantly impacted. If we are unsuccessful in adapting to the requirements of any new standard, then we may experience greater volatility in our quarterly and annual results, which may cause our stock price to decline.

In addition, GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Such estimates and assumptions are, by their nature, subject to substantial risks and uncertainties and factors may arise over time that lead us to change our methods, estimates, and judgments. Changes in those methods, estimates, and judgments could significantly affect our results of operations.

***If we fail to maintain an effective system of disclosure controls and internal control over financial reporting, our ability to produce timely and accurate financial statements or comply with applicable regulations could be impaired.***

Ensuring that we have adequate internal financial and accounting controls and procedures in place to produce accurate financial statements on a timely basis is a costly and time-consuming effort that needs to be re-evaluated frequently. The rapid growth of our operations in recent years and our initial public offering in 2021 have created a need for additional resources within the accounting and finance functions due to the increasing need to produce timely financial information and to ensure the level of segregation of duties customary for a U.S. public company. We continue to reassess the sufficiency of finance personnel in response to these increasing demands and expectations.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Our management does not expect that our internal control over financial reporting will prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, within our company will have been detected.

We may experience material weaknesses in our internal controls over financial reporting in the future. Our failure to remediate these material weaknesses and maintain effective internal control over financial reporting could result in material misstatements in our financial statements, the inability to timely report our financial condition or results of operations, investors losing confidence in our reported financial information and our stock price being adversely affected.

***Substantial future sales of shares of our Class A common stock could cause the market price of our Class A common stock to decline and we may also expend substantial funds to satisfy a portion of our tax withholding and remittance obligations that arise***

***upon the vesting and/or settlement of certain of our restricted stock awards, which may have an adverse effect on our financial condition and results of operations.***

Sales of a substantial number of shares of our Class A common stock, particularly sales by our directors, executive officers and significant stockholders, or the perception that these sales might occur, could depress the market price of our Class A common stock. On June 10, 2022, the lock-up agreements that previously restricted certain holders of our capital stock from transferring or selling our shares expired. Additionally, our directors, executive officers, employees and, in certain instances, service providers, hold shares of common stock subject to outstanding options, restricted stock awards and restricted stock units under our equity incentive plans. Those shares and the shares reserved for future issuance under our equity incentive plans are and will become eligible for sale in the public market, subject to certain legal and contractual limitations. Further, certain holders of our common stock have rights, subject to certain conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or our stockholders. We are unable to predict the effect that such sales related to the foregoing may have on the prevailing market price of our Class A common stock.

In addition, on August 3, 2022, the Company's board of directors authorized withholding as an alternative to market sales by executives to satisfy tax withholding requirements upon vesting of restricted stock awards ("RSAs"). As such, beginning in the third quarter of 2022, we have used and may continue to use corporate cash to make required tax payments associated with the vesting of certain executive RSAs and withhold a corresponding number of shares from such executives. We anticipate that if we continue to utilize the withholding alternative, we will spend substantial funds to satisfy tax withholding and remittance obligations when we settle executive RSAs, which may have an adverse effect on our financial condition and results of operations.

***We cannot guarantee that our share repurchase program will be fully consummated or that it will enhance long-term stockholder value. Share repurchases could also increase the volatility of the trading price of our common stock and could diminish our cash reserves.***

In August 2022, our board of directors authorized a share repurchase program to repurchase up to $50 million of our outstanding Class A common stock through December 31, 2024. Although our board of directors has authorized this repurchase program, the program does not obligate us to repurchase any specific dollar amount or to acquire any specific number of shares. The actual timing and amount of repurchases remain subject to a variety of factors, including stock price, trading volume, market conditions and other general business considerations. In addition, the terms of our Senior Secured Credit Facility impose limitations on our ability to repurchase shares. The share repurchase program may be modified, suspended, or terminated at any time, and we cannot guarantee that the program will be fully consummated or that it will enhance long-term stockholder value. The program could affect the trading price of our stock and increase volatility, and any announcement of a termination of this program may result in a decrease in the trading price of our stock. In addition, this program could diminish our cash and cash equivalents and marketable securities.

***The dual class structure of our common stock has the effect of concentrating voting control with those stockholders who held our capital stock prior to the completion of our initial public offering, including our Co-Founder and Chief Executive Officer and his affiliates. This will limit or preclude your ability to influence corporate matters, including the election of directors, amendments to our organizational documents and any merger, consolidation, sale of all or substantially all of our assets, or other major corporate transaction requiring stockholder approval.***

Our Class B common stock is entitled to ten votes per share and our Class A common stock is entitled to one vote per share. The dual class structure of our common stock has the effect of concentrating voting control with our Co-Founder and Chief Executive Officer and his affiliates, which will limit your ability to influence the outcome of matters submitted to our stockholders for approval, including the election of our directors and the approval of any change in control transaction.

As of December 31, 2022, our current founder and chief executive officer and his affiliates held, in aggregate 65.4% of the voting power of our outstanding capital stock. As a result, these stockholders, acting together, will have control over most matters that require approval by our stockholders, including the election of directors and approval of significant corporate transactions. They may also have interests that differ from yours and may vote in a way with which you disagree and which may be adverse to your interests. Corporate action might be taken even if other stockholders oppose them. This concentration of ownership may have the effect of delaying, preventing or deterring a change of control or other liquidity event of our company, could deprive our stockholders of an opportunity to receive a premium for their shares of common stock as part of a sale or other liquidity event and might ultimately affect the market price of our common stock.

***We are a "controlled company" within the meaning of the NYSE rules and, as a result, expect to qualify for, and may rely on, exemptions from certain corporate governance requirements.***

As of December 31, 2022, our Co-Founder and Chief Executive Officer, David Steinberg, beneficially owns a majority of the combined voting power of all classes of our outstanding voting stock. As a result, we continue to be a controlled company within the meaning of the applicable stock exchange corporate governance standards. Under the NYSE rules, a company of which more than 50% of the voting power is held by another person or group of persons acting together is a controlled company and may elect not to comply with certain corporate governance requirements, including the requirements that:

- a majority of the board of directors consist of independent directors as defined under the rules of the NYSE;
- the nominating and governance committee be composed entirely of independent directors with a written charter addressing the committee's purpose and responsibilities; and
- the compensation committee be composed entirely of independent directors with a written charter addressing the committee's purpose and responsibilities.

These requirements will not apply to us as long as we remain a controlled company. We have not elected to take advantage of the exemption from these requirements, but may elect to do so in the future so long as we remain a "controlled company." If we choose to rely on these exemptions, you may not have the same protections afforded to stockholders of companies that are subject to all of the corporate governance requirements of the NYSE.

***Anti-takeover provisions contained in our charter documents and Delaware law could prevent a takeover that stockholders consider favorable and could also reduce the market price of our stock.***

Our amended and restated certificate of incorporation contains provisions that could delay or prevent a change in control of our company. These provisions could also make it more difficult for stockholders to elect directors and take other corporate actions. These provisions do the following:

- permit our board of directors to issue up to 200,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate;
- provide that the authorized number of directors may be changed only by resolution of our board of directors;
- provide that our board of directors will be classified into three classes of directors;
- limit the ability of stockholders to remove directors to permit removals only "for cause" once Class B common stock ceases to hold more than 50% of all our outstanding common stock;
- provide that all vacancies, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- prohibit stockholder action by written consent, subject to the terms of any series of preferred stock, if the holders of shares of Class B common stock no longer hold at least a majority of the voting power of the outstanding shares of our common stock;
- require advance notice for nominations of directors by stockholders and for stockholders to include matters to be considered at our annual meetings;
- provide certain limitations on convening special stockholder meetings;
- so long as any shares of Class B common stock remain outstanding, require the prior affirmative vote of the holders of a majority of the outstanding shares of Class B common stock, voting as a separate class to consummate a Change of Control Transaction (as defined in our amended and restated certificate of incorporation);
- provide that the restrictions set forth in Section 203 of the Delaware General Corporation Law ("DGCL") shall be applicable to us in the event that no holder of Class B common stock owns shares of our capital stock representing at least fifteen percent (15%) of the voting power of all the then outstanding shares of our capital stock; and
- not provide for cumulative voting rights in election of directors.

These and other provisions in our amended and restated certificate of incorporation and under Delaware law could discourage potential takeover attempts, reduce the price investors might be willing to pay in the future for shares of our Class A common stock and result in the market price of our Class A common stock being lower than it would be without these provisions.

***Our amended and restated certificate of incorporation provides, subject to certain exceptions, that (i) the Court of Chancery of the State of Delaware is the sole and exclusive forum for certain stockholder litigation matters and (ii) the federal district courts of the United States of America are the exclusive forum for the resolution of any complaint asserting a cause of action under the Securities Act, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees or stockholders.***

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware is, to the fullest extent permitted by law, the sole and exclusive forum for:

- any derivative action or proceeding brought on our behalf;
- any action asserting a claim of breach of a fiduciary duty owed by, or other wrongdoing by, any of our current or former directors, officers, employees or our stockholders;
- any action asserting a claim against us arising under the DGCL, our amended and restated certificate of incorporation, or our amended and restated bylaws (as either may be amended from time to time) or as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware; and
- any action asserting a claim against us that is governed by the internal-affairs doctrine.

This exclusive forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage lawsuits against us and our directors, officers and other employees. Although our amended and restated certificate of incorporation contains the exclusive forum provision described above, it is possible that a court could find that such a provision is inapplicable for a particular claim or action or that such provision is unenforceable. If a court were to find the exclusive forum provision in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving the dispute in other jurisdictions, which could seriously harm our business.

Under our amended and restated certificate of incorporation, the exclusive forum provision described above does not apply to claims arising under the Exchange Act. Accordingly, actions by our stockholders to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder must be brought in federal court. Our stockholders will not be deemed to have waived our compliance with the federal securities laws and the regulations promulgated thereunder.

***We are an emerging growth company subject to reduced disclosure requirements, and there is a risk that availing ourselves of such reduced disclosure requirements will make our Class A common stock less attractive to investors.***

We are an emerging growth company, and for as long as we continue to be an emerging growth company, we intend to avail ourselves of exemptions from various reporting requirements such as, but not limited to, not being required to obtain auditor attestation of our reporting on internal control over financial reporting, having reduced disclosure obligations about our executive compensation in this Annual Report on Form 10-K and in our periodic reports and proxy statements, and not being required to hold advisory stockholder votes on executive compensation and stockholder approval of any golden parachute payments not previously approved. If some investors find our Class A common stock less attractive as a result, there may be a less active trading market for our Class A common stock, and our stock price may be more volatile.

We will remain an emerging growth company until the earliest of (i) the last day of the year in which we have total annual gross revenues of $1.07 billion or more; (ii) the last day of the year following the fifth anniversary of the date of the consummation of the Company's IPO; (iii) the date on which we have issued more than $1.0 billion in non-convertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC.

**Item 1B. Unresolved Staff Comments.**

None.

**Item 2. Properties.**

Our corporate headquarters is located in New York City, New York. It consists of approximately 23,000 square feet under a lease agreement that expires in March 2029. We have several offices in the U.S. and have operations in the UK, the EU and India, as well as other locations. Our New York office focuses on our go-to-market strategy, customer success, shared services and infrastructure. Our San Francisco and Silicon Valley offices serve as our innovation hubs. The European offices focus on go-to-market and customer success. The India offices concentrate on innovation, infrastructure and shared services.

All our offices are leased and we do not own any real property. We believe that our current facilities are sufficient to meet our present needs. As we grow, we expect that suitable additional space will be available to either expand existing offices or open new office locations.

**Item 3. Legal Proceedings.**

From time to time, we are involved in various legal proceedings arising from the normal course of business activities. We are not currently a party to any litigation the outcome of which, we believe, if determined adversely to us, would individually or taken together have a material adverse effect on our business, operating results, cash flows, or financial condition. Defending any such proceedings is costly and can impose a significant burden on management and employees. The results of any current or future litigation cannot be predicted with certainty, and regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources, and other factors. For a description of our legal proceedings, see Note 8 to our audited consolidated financial statements in the "Financial Statements and Supplementary Data" section of this Annual Report on Form 10-K.

**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

On June 14, 2021, our Class A common stock began trading on the NYSE under the symbol "ZETA". Prior to that time, there was no public market for our Class A common stock. There is no established public trading market for our Class B common stock.

#### Stockholders

As of January 31, 2023, there were 131 holders of record of our Class A common stock and 7 holders of record of our Class B common stock.

#### Dividend Policy

We do not currently intend to pay any cash dividends on our Class A or Class B common stock. Any declaration and payment of future dividends to holders of our Class A common stock will be at the discretion of our board of directors and will depend on many factors, including our financial condition, earnings, operating results, contractual restrictions, capital requirements, business prospects and other factors our board of directors may deem relevant.

#### Purchases of Equity Securities by the Issuer or Affiliated Purchaser

Common stock repurchases during the quarter ended December 31, 2022 were as follows:

| Period | (a) Total Number of Shares (or Units) Purchased | (b) Average Price Paid per Share (or Unit) | (c) Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs[1] | (d) Maximum Number (or Approximate Dollar Value) of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs (in millions) [1] |
|---|---|---|---|---|
| October 1, 2022 – October 31, 2022 | 191,089 | $ 6.72 | 191,089 | $ 44.4 |
| November 1, 2022 – November 30, 2022 | 208,643 | $ 8.88 | 208,643 | $ 42.6 |
| December 1, 2022 – December 31, 2022 | 239,330 | $ 9.03 | 239,330 | $ 40.4 |
| Total | 639,062 | | 639,062 | |

(1) On August 3, 2022, the Company's Board of Directors authorized a stock repurchase and withholding program of up to $50 million in the aggregate for (i) repurchases of the Company's outstanding Class A common stock through December 31, 2024 and (ii) the withholding of shares as an alternative to market sales by certain executives to satisfy tax withholding requirements upon vesting of restricted stock awards.

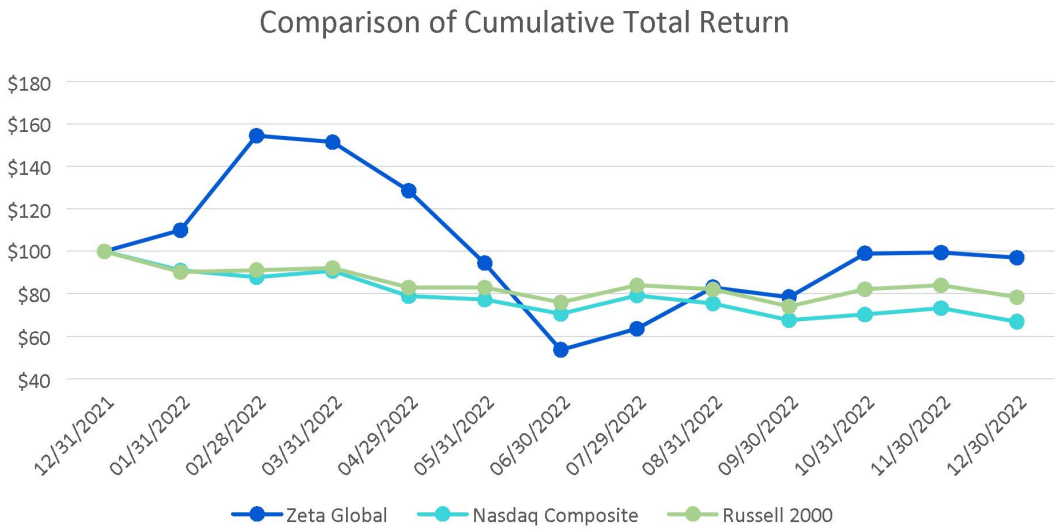
#### Recent Sales of Unregistered Securities

None.

**Performance Graph**

*The following performance graph and related information shall not be deemed "soliciting material" or to be "filed" with the SEC, nor shall such information be incorporated by reference into any future filing under the Securities Act or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing, or otherwise subject to the liabilities under the Securities Act or Exchange Act, except to the extent that we specifically incorporate it by reference into such filing.*

The following graph depicts the total cumulative stockholder return of our Class A common stock from June 10, 2021, the first day of trading of our Class A common stock on the NYSE, through December 31, 2022, relative to the performance of the Nasdaq Composite and the Russell 2000 indices. The graph assumes an initial investment of $100.00 at the close of trading on June 10, 2021 and that all dividends paid by companies included in these indices have been reinvested. The performance shown in the graph below is not intended to forecast or be indicative of future stock price performance.




**Item 6. Reserved.**

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

*The following discussion and analysis provides information which management believes is relevant to an assessment and understanding of our consolidated results of operations and financial condition. The discussion should be read in conjunction with our consolidated financial statements and notes thereto included elsewhere in this Annual Report on Form 10-K. This discussion contains forward-looking statements and involves numerous risks and uncertainties, including, but not limited to, those described under the heading "Risk Factors." Actual results may differ materially from those contained in any forward-looking statements. Additionally, our historical results are not necessarily indicative of the results that may be expected for any period in the future. Our management's discussion and analysis of financial condition and results of operations included in this document generally discusses 2022 and 2021 items and year-to-year comparisons between 2022 and 2021. Discussions of 2020 and 2019 items and year-to-year comparisons between 2021 and 2020, and 2020 and 2019 that are not included in this document can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2021.*

## Overview

Zeta is a leading omnichannel data-driven cloud platform that provides enterprises with consumer intelligence and marketing automation software. We empower our customers to target, connect and engage consumers through software that delivers personalized marketing across all addressable channels, including email, social media, web, chat, Connected TV ("CTV") and video, among others. We believe our actionable insights derived from consumer intent enable our customers to acquire, grow and retain consumer relationships more efficiently and effectively than the alternative solutions available in the market.

Our Zeta Marketing Platform, or ZMP, is the largest omnichannel marketing platform with identity data at its core. The ZMP can analyze billions of structured and unstructured data points to predict consumer intent by leveraging sophisticated machine learning algorithms and the industry's largest opted-in data set for omnichannel marketing. The ZMP acts on these insights by connecting with consumers through native integration of marketing channels and API integration with third parties. The ZMP's data-driven algorithms and processes learn and optimize each customer's marketing program in real time, producing a 'flywheel effect' that enables our customers to test, learn and improve their marketing programs in real time.

The ZMP empowers our customers to personalize consumer experiences at scale across multiple touchpoints. Marketing programs are created and orchestrated by our customers through automated workflows and sophisticated dashboards. Our Consumer Data Platform ("CDP+") ingests, analyzes and distills disparate data points to generate a single view of a consumer, encompassing identity, profile characteristics, behaviors and purchase intent, which is then made accessible through a single console. Our Opportunity Explorer synthesizes Zeta's proprietary data and data generated by our customers to uncover consumer insights that are translated into marketing programs designed for highly targeted audiences across digital channels, including email, SMS, websites, applications, social media, CTV and chat.

## Factors Affecting Results of Operations

The following factors have been important to our business and we expect them to impact our results of operations and financial condition in future periods:

***New Scaled Customer Acquisition***

We are focused on increasing the number of scaled customers that adopt the ZMP in their enterprises. We define "scaled customers" as customers from which we generated at least $100,000 in revenues in the trailing twelve months. Our long-term growth and operating results will depend on our ability to attract more scaled customers as we address their most pressing marketing automation needs. We will continue to focus on enterprises across multiple geographies. Between January 1, 2022 and December 31, 2022, our sales team increased by approximately 23 sales employees, and we expect to continue to invest in our go-to-market efforts in 2023. We have significantly enhanced our sales techniques in order to build a collaborative environment that encourages cross-selling and implemented a new learning and development program for our sales team. Our sales team productivity increases with tenure and our current management system gives us confidence that we are well positioned for sustainable growth. Our Opportunity Explorer is a module that provides actionable insights to our customers and serves as an entry point into the ZMP. Opportunity Explorer has been a proven way to land scaled customers, with minimal cost of implementation and high value adoption.

***Drive Increase to Average Revenue Per User***

During the year ended December 31, 2022, we experienced an increase in our scaled customer Average Revenue Per User ("ARPU"), which resulted in our revenue increasing for the year compared to the prior-year period. Our scaled customer ARPU growth resulted primarily from the initial effects of transitioning our sales team model to focus a dedicated team on new business development and a separate team on training and educating new and existing users on our platform capabilities. Our transition to this hunter/farmer sales model has included focusing more of our sales team on growth of existing scaled customers and aligning scaled customers with sellers that have specific industry expertise. In addition, scaled customer ARPU also benefitted from increased levels of business from customers in industries that experienced positive effects from the COVID-19 pandemic, such as insurance, automotive and telecom.

***Expand Sales to Existing Customers***

We adhere to a "land, expand, extend" sales model. After prospecting and landing new scaled customers, we focus on expanding sales to such scaled customers. This includes increasing their use of one product and/or embedding multiple products within an enterprise with our Opportunity Explorer serving as the connective tissue across multiple products. We have scaled customers both in the U.S. and internationally and we believe we can achieve growth by cross-selling our existing solutions and introducing new features and functionalities within the platform. We expect that our ability to increase adoption of our products within existing scaled customers increases our future opportunities through additional sales. As part of this strategy, we expect to drive expansion in the number of channels per scaled customer. During the year ended December 31, 2022 and 2021, our channels per scaled customer were 2.0 and 1.9, respectively.

We use an annual net revenue retention ("NRR") rate as a measure of our ability to retain and expand business generated from our existing customers base. We believe that many companies frequently use annual NRR rate as an indicator for determining customer loyalty. We calculate our annual NRR rate by dividing current year revenue earned from customers from which we also earned revenue in the prior year, by the prior year revenues. Our annual NRR rate was 111.5% and 113.3% for the years ended December 31, 2022 and 2021, respectively. We exclude political and advocacy customers, which represented 6.3% and 1.5% of revenue for 2022 and 2021, respectively, from our calculation of annual NRR rate because of the biennial nature of these customers.

Our customer loyalty is also reflected in the table below, which breaks down the tenure of our scaled customers for the year ended December 31, 2022.

**Tenure for All Scaled Customers for Year Ended December 31, 2022**

| Customer Tenure | Number of Scaled Customers | % of Scaled Customers | % of Scaled Customer Revenue |
|---|---|---|---|
| 3+ Years | 214 | 53.1% | 63.6% |
| 1-3 Years | 112 | 27.8% | 27.4% |
| Under 1 Year | 77 | 19.1% | 9.0% |
| Total | 403 | 100.0% | 100.0% |

Additionally, of our 103 super-scaled customers who generate at least $1.0 million in revenue in the trailing twelve months, 71 have a tenure of 3+ years.

***Adoption of Marketing Automation Products***

Our ability to drive adoption of the ZMP will depend on the overall demand for marketing automation solutions. We expect continued strong investment in marketing technology by enterprise companies. Additionally, as enterprise marketing spend shifts towards digital from offline channels, we expect marketing automation technology will benefit. As a result, we expect our enterprise customer base to grow and propel greater platform deployment and usage. While we do not believe our competitors offer a comparable all-in-one platform solution for marketing automation, certain competitors offer point solutions that compete with specific tools and products we offer as part of the ZMP. Potential customers may also elect to build in-house solutions for marketing automation. While it is difficult to predict adoption rates and future product demand, we are focused on continuing to innovate and create marketing automation products that address the business requirements of our customers better than alternative solutions.

***Investment in Innovation***

We intend to invest in our business in order to drive long-term growth in an expanding market and capture economies of scale derived from a larger business base. For example, we plan to invest in our research and development activities to ensure we remain at the forefront of data management, AI development and marketing automation. We will also continue to invest in our sales and marketing capabilities. Lastly, we expect to invest in the expansion of markets including international and the B2B sector. We plan to incur additional general and administrative expenses to support our growth. Even as cost of revenue and other expenses fluctuate over time and may be negatively impacted by factors beyond our control, we plan to remain focused on making necessary investments to drive long-term growth.

***Seasonality***

In general, the marketing industry experiences seasonal trends that affect the vast majority of participants in the digital marketing ecosystem. Historically, marketing activity is higher in the fourth quarter of the calendar year to coincide with the holiday shopping season as compared to the first quarter. As a result, the subsequent first quarter tends to reflect lower activity levels and lower performance. We generally expect these seasonality trends to continue and our ability to effectively manage our resources in anticipation of these trends may affect our operating results.

**Key Performance Metrics**

We review several key performance metrics, discussed below, to evaluate our business, track performance, identify trends, formulate plans and make strategic decisions. We believe that the presentation of such metrics provides investors with effective ways to measure and model the performance of companies such as ours, with recurring revenue streams.

***Scaled customers***

We measure and track the number of scaled customers on an annual basis because our ability to attract new scaled customers, grow our scaled customer base and retain or expand our business with existing scaled customers is both an important contributor to our revenue growth and an indicator to investors of our measurable success. We define scaled customers as customers from which we generated at least $100,000 in revenues per year. As a subset of scaled customers, we define super-scaled customers as customers from which we generated at least $1.0 million in revenues per year. We calculate the number of scaled and super-scaled customers at the end of each quarter and on an annual basis as the number of customers billed during each applicable period. In 2022, we had 403 scaled customers that represented 98% of total revenue, compared to 355 scaled customers representing 96% of total revenue in 2021.

| | Year ended December 31, | |
|---|---|---|
| | 2022 | 2021 |
| **Scaled customers** | 403 | 355 |

Scaled customers increased 14% for the year ended December 31, 2022, as compared to 2021, primarily due to growth in our customer base in the U.S. Of our scaled customers, 103 and 97 are super-scaled customers for the years ended December 31, 2022 and December 31, 2021, respectively.

***Scaled customer ARPU***

We believe that our ability to increase scaled customer ARPU is an indicator of our ability to grow the long-term value of existing customer relationships. We calculate the scaled customer ARPU as revenue for the corresponding period divided by the average number of scaled customers during that period. We believe that scaled customer ARPU is useful for investors because it is an indicator of our ability to increase revenue and scale our business.

| | Year ended December 31, | |
|---|---|---|
| | 2022 | 2021 |
| Scaled customer ARPU | $ 1,431 | $ 1,242 |

Scaled customer ARPU increased 15% for the year ended December 31, 2022, as compared to 2021, primarily due to higher usage of our platform among scaled customers. ARPU for our super-scaled customers was $4.5 million (across 103 customers) and $3.6 million (across 97 customers) for the years ended December 31, 2022 and December 31, 2021, respectively due to the significant additions to the number of scaled customers in this category.

## Description of Certain Components of Financial Data

***Revenues***

Our revenue primarily arises from use of our technology platform via subscription fees, volume-based utilization fees and fees for professional services. Our platform revenue comprised of a mix of direct platform revenue and integrated platform revenue, which leverages application programming interface ("API") integrations with third parties. For 2022 and 2021, we derived 77% and 76% of our revenues from direct platform revenue, respectively, and 23% and 24% of our revenues from integrated platform revenue, respectively. Revenues are recognized when control of these services is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to in exchange for those services. Sales and other taxes collected by us are excluded from revenue. Our revenue recognition policies are discussed in more detail under "Critical Accounting Estimates."

***Cost of revenues (excluding depreciation and amortization)***

Cost of revenue excludes depreciation and amortization and consists primarily of media and marketing costs and certain employee-related costs. Media and marketing costs consist primarily of fees paid to third-party publishers, media owners or managers, and strategic partners that are directly related to a revenue-generating events. We pay these third-party publishers, media owners or managers and strategic partners on a revenue-share, a cost-per-lead, cost-per-click, or cost-per-thousand-impressions basis. Expenses related to "internet traffic" associated with the viewing of available impressions or queries per second and costs of providing support to our customers are also included in the cost of revenues. Employee-related costs included in cost of revenues include salaries, bonuses, commissions, stock-based compensation and employee benefit costs primarily related to individuals directly associated with providing services to our customers. Our cost of revenues are dependent on the revenue mix and therefore can slightly increase or decrease in the future as a percentage of revenue over the long term.

***General and administrative expenses***

General and administrative expenses primarily consist of computer and telecom expenses, employee-related costs, including salaries, bonuses, stock-based compensation and employee benefits costs associated with our executives, finance, legal, human resources and other administrative personnel, as well as accounting and legal professional services fees and platform and related infrastructure costs. We expect general and administrative expenses to increase in absolute dollars in future periods. We expect that general and administrative expenses to decrease as a percentage of revenue over the long term.

***Selling and marketing expenses***

Selling and marketing expenses primarily consist of employee-related costs, including salaries, bonuses, employee benefits costs, stock-based compensation and commission costs for our sales and marketing personnel. Selling and marketing expenses also include costs for market development programs, advertising, promotional and other marketing activities. We intend to continue to invest in marketing initiatives and as a result we expect selling and marketing expenses to increase in absolute dollars in future periods. Selling and marketing expense as a percentage of revenue may fluctuate from period to period based on revenue levels and the timing of our investments in these functions over the long term.

***Research and development expenses***

Research and development expenses primarily consists of employee-related costs, including salaries, bonuses and employee benefit costs, stock-based compensation associated with engineering and IT services associated with the ongoing research and maintenance of internal use software. We expect to continue to invest in research and development in order to develop our technology platform to drive incremental value and growth and as a result we expect that research and development expenses will fluctuate from period to period as a percentage of revenue over the long term.

***Depreciation and amortization***

Depreciation and amortization relate to property and equipment, website and software development costs as well as acquisition-related and other acquired intangible assets. We record depreciation and amortization using straight-line method over the estimated useful life of the assets.

***Acquisition-related expenses***

Acquisition-related expenses primarily consists of legal fees associated with certain business combinations. It also includes retention bonuses agreed to be paid to employees related to one-time events such as an acquisition or a significant transaction. We expect that acquisition-related expenses will be correlated with future acquisitions (if any), which could be greater than or less than our historic levels.

***Restructuring expenses***

Restructuring expenses consists primarily of employee termination costs due to internal restructuring. We expect that restructuring expenses will be correlated with future restructuring activities (if any), which could be greater than or less than our historic levels. We did not have any such restructuring activities during the year ended December 31, 2022.

***Interest expense***

Interest expense primarily consists of interest payable on our long-term borrowings, net of interest earned on our short term investments in money market accounts and other short term deposits. We anticipate interest expense to be impacted by changes in variable interest rates.

***Other expenses / (income)***

Other expenses / (income) primarily consist of changes in fair value of acquisition-related liabilities, gains and losses on sale of assets and foreign exchange gains and losses. We expect that the magnitude of other income and expenses will depend on external factors such as foreign exchange rate and the remeasurement impact of acquisition related liabilities, which depends on the performance of our acquisitions and could be greater than or less than our historic levels.

***Change in fair value of warrants and derivative liabilities***

Change in fair value of warrants and derivative liabilities primarily relates to warrants to purchase shares of our common stock that we issued in connection with previous financing rounds, these warrants were converted into our Class A Common Stock upon IPO and as such there is no revaluation impact of warrant liabilities during the year ended on December 31, 2022. Historically, our derivative liability represented the conversion feature on our redeemable convertible preferred stock, which also extinguished upon our IPO. When we enter into transactions that include certain features that qualify to be embedded derivatives in accordance with ASC Topic 815, that requires to bifurcate such features from their host instruments and account for them as free-standing derivative financial instruments if certain criteria are met. Future changes in the fair value of warrants and derivative liabilities depends on the Company entering into transactions that contain warrants or derivative features.

***Income tax (benefit) / provision***

We account for income taxes in accordance with ASC 740, Income Taxes, which requires an asset and liability approach for the financial accounting and reporting of income taxes. Under this method, deferred tax assets and liabilities are determined based on temporary differences between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect on deferred tax assets and liabilities of a change in tax laws is recognized in the consolidated statements of operations in the period that includes the enactment date. A valuation allowance is established when we determine that it is more likely than not that some portion or all of the deferred tax assets will not be realized. We have concluded that the U.S. deferred tax assets are not realizable on a more-likely-than-not basis and that a full valuation allowance is required.

***Stock-based compensation***

The measurement of stock-based compensation for all stock-based payment awards, including restricted stock, employee's stock purchase plan ("ESPP"), performance stock units ("PSUs") and stock options granted to employees, consultants or advisors and non-employee directors, is based on the estimated fair value of the awards on the date of grant or date of modification of such grants. See Note 13 to our consolidated financial statements for further details.

We estimate the recognition of unrecognized stock-based compensation as follows, subject to future forfeitures:

| Year ended December 31, | | | | | |
|---|---|---|---|---|---|
| 2023 | 2024 | 2025 | 2026 | 2027 | Total |
| $ 198,226 | $ 101,214 | $ 46,532 | $ 13,243 | $ 131 | $ 359,346 |

## Results of Operations

We operate as a single reportable segment to reflect the way our Chief Operating Decision Maker ("CODM") reviews and assesses the performance of the business. Our CODM is the Chief Executive Officer.

| | Year ended December 31, | | |
|---|---|---|---|
| | 2022 | 2021 | 2020 |
| **Revenues** | **$ 590,961** | $ 458,338 | $ 368,120 |
| **Operating expenses:** | | | |
| Cost of revenues (excluding depreciation and amortization) | **215,466** | 174,720 | 148,878 |
| General and administrative expenses | **213,615** | 189,606 | 70,849 |
| Selling and marketing expenses | **299,238** | 229,343 | 77,140 |
| Research and development expenses | **69,454** | 64,474 | 31,772 |
| Depreciation and amortization | **51,878** | 45,922 | 40,064 |
| Acquisition- related expenses | **344** | 1,953 | 5,402 |
| Restructuring expenses | **—** | 727 | 2,090 |
| **Total operating expenses** | **$ 849,995** | $ 706,745 | $ 376,195 |
| **Loss from operations** | **(259,034)** | (248,407) | (8,075) |
| Interest expense | **7,303** | 7,033 | 16,257 |
| Other expenses / (income) | **13,983** | (279) | (126) |
| Gain on extinguishment of debt | **—** | (10,000) | — |
| Change in fair value of warrants and derivative liabilities | **410** | 5,000 | 28,100 |
| Total other expenses | **$ 21,696** | $ 1,754 | $ 44,231 |
| Loss before income taxes | **(280,730)** | (250,161) | (52,306) |
| Income tax (benefit) / provision | **(1,491)** | $ (598) | 919 |
| **Net loss** | **$ (279,239)** | **$ (249,563)** | **$ (53,225)** |

***Comparison of the Years Ended December 31, 2022 and 2021***

**Revenues**

| | Year Ended December 31, | | Change | |
|---|---|---|---|---|
| | 2022 | 2021 | Amount | % |
| Revenues | $ 590,961 | $ 458,338 | $ 132,623 | 28.9% |

Revenues increased by $132.6 million, or 28.9%, for the year ended December 31, 2022 as compared to the year ended December 31, 2021. The increase in revenues is attributable to incremental revenues of $76.1 million from existing customers and $56.5 million from new customers (including approximately $1.6 million from the acquisitions made during the year ended December 31, 2022).

**Cost of revenues (excluding depreciation and amortization)**

| | Year Ended December 31, | | Change | |
|---|---|---|---|---|
| | 2022 | 2021 | Amount | % |
| Cost of revenues (excluding depreciation and amortization) | $ 215,466 | $ 174,720 | $ 40,746 | 23.3% |

Cost of revenues (excluding depreciation and amortization) increased by $40.7 million, or 23.3%, for the year ended December 31, 2022 as compared to the year ended December 31, 2021. This increase was primarily driven by $36.3 million in incremental media costs, higher stock-based compensation of $4.0 million, due to acceleration of certain grants during the year ended December 31, 2022 and increase in other employee related costs of $0.4 million.

**General and administrative expenses**

| | Year Ended December 31, | | Change | |
|---|---|---|---|---|
| | 2022 | 2021 | Amount | % |
| General and administrative expenses | $ 213,615 | $ 189,606 | $ 24,009 | 12.7% |

General and administrative expenses increased by $24.0 million, or 12.7%, for the year ended December 31, 2022 as compared to the year ended December 31, 2021. This increase was primarily driven by higher stock-based compensation of $13.2 million, computer and telecom-related expenses of $6.6 million and professional services fees of $4.2 million.

**Selling and marketing expenses**

| | Year Ended December 31, | | Change | |
|---|---|---|---|---|
| | 2022 | 2021 | Amount | % |
| Selling and marketing expenses | $ 299,238 | $ 229,343 | $ 69,895 | 30.5% |

Selling and marketing expenses increased by $69.9 million, or 30.5%, for the year ended December 31, 2022, as compared to the year ended December 31, 2021. This increase was primarily driven by higher employee-related costs of $36.1 million, stock-based compensation of $22.8 million and other sales and marketing-related expenses of $11.0 million.

**Research and development expenses**

| | Year Ended December 31, | | Change | |
|---|---|---|---|---|
| | 2022 | 2021 | Amount | % |
| Research and development expenses | $ 69,454 | $ 64,474 | $ 4,980 | 7.7% |

Research and development expenses increased by $5.0 million, or 7.7%, for the year ended December 31, 2022 as compared to the year ended December 31, 2021. This increase was primarily driven by higher consulting expenses of $3.0 million, employee related costs of $2.3 million which was partially offset by lower stock-based compensation of $0.3 million.

**Depreciation and amortization**

| | Year Ended December 31, | | Change | |
|---|---|---|---|---|
| | 2022 | 2021 | Amount | % |
| Depreciation and amortization | $ 51,878 | $ 45,922 | $ 5,956 | 13.0% |

Depreciation and amortization expense increased by $6.0 million, or 13.0%, for the year ended December 31, 2022 as compared to the year ended December 31, 2021. This increase was driven by an increase in amortization of intangible assets of $4.0 million and an increase in depreciation expense of $1.9 million primarily due to incremental website and software development-related capitalization over the recent periods.

**Acquisition-related expenses**

| | Year Ended December 31, | | Change | |
|---|---|---|---|---|
| | 2022 | 2021 | Amount | % |
| Acquisition-related expenses | $ 344 | $ 1,953 | $ (1,609) | (82.4)% |

Acquisition-related expenses decreased by $1.6 million, or 82.4%, for the year ended December 31, 2022 as compared to the year ended December 31, 2021, primarily driven by lower professional fees.

**Restructuring expenses**

| | Year Ended December 31, | | Change | |
|---|---|---|---|---|
| | 2022 | 2021 | Amount | % |
| Restructuring expenses | $ — | $ 727 | $ (727) | (100.0)% |

Restructuring expenses decreased by $0.7 million, or 100%, for the year ended December 31, 2022 as compared to the year ended December 31, 2021, due to the reorganization expenses incurred by the Company during the year ended December 31, 2021. There was no such reorganization done by the Company during the year ended December 31, 2022.

**Interest expense**

| | Year Ended December 31, | | Change | |
|---|---|---|---|---|
| | 2022 | 2021 | Amount | % |
| Interest expense | $ 7,303 | $ 7,033 | $ 270 | 3.8% |

Interest expense increased by $0.3 million, or 3.8%, for the year ended December 31, 2022 as compared to the year ended December 31, 2021. This increase was primarily driven by higher interest rates in 2022, partially offset by the income earned on our money market accounts and other short term deposits.

**Other expenses / (income)**

| | Year Ended December 31, | | Change | |
|---|---|---|---|---|
| | 2022 | 2021 | Amount | % |
| Other expenses / (income) | $ 13,983 | $ (279) | $ 14,262 | NA |

Other expenses increased by $14.3 million, or more than 100% for the year ended December 31, 2022 as compared to the year ended December 31, 2021. This increase was primarily driven by an incremental change of $14.8 million in the fair value of acquisition related liabilities, related to the Company's acquisitions, partially offset by foreign exchange gain of $0.3 million due to appreciation of US dollars against other currencies.

**Change in fair value of warrants and derivative liabilities**

| | Year Ended December 31, | | Change | |
|---|---|---|---|---|
| | 2022 | 2021 | Amount | % |
| Change in fair value of warrants and derivative liabilities | $ 410 | $ 5,000 | $ (4,590) | (91.8)% |

Change in fair value of warrants and derivative liabilities expense decreased by $4.6 million, or 91.8% for the year ended December 31, 2022 as compared to the year ended December 31, 2021. This decrease was primarily driven by the extinguishment of warrants and derivative liabilities upon our initial public offering ("IPO") on June 14, 2021. We did not have any derivative liability as of December 31, 2022 and December 31, 2021.

**Income tax benefit**

| | Year Ended December 31, | | Change | |
|---|---|---|---|---|
| | 2022 | 2021 | Amount | % |
| Income tax benefit | $ (1,491) | $ (598) | $ (893) | 149.3% |

Income tax benefit increased by $0.9 million, or 149.3%, for the year ended December 31, 2022 compared to the year ended December 31, 2021. For the year ended December 31, 2022, we recorded an income tax benefit of $1,491. For the year ended December 31, 2022 and 2021, income tax benefit relates primarily to the partial release of our U.S. valuation allowance as a business combination consummated during 2022 and 2021 created a source of future taxable income, partially offset by an income tax provision for foreign taxes.

The effective tax rates for the years ended December 31, 2022 and 2021 were 0.5% and 0.2%, respectively. The change in effective tax rate was primarily related to our partial release of our U.S. valuation allowance. During 2022, the net increase in our valuation allowance was $26.1 million primarily as a result of current year operating losses for which no tax benefit was recorded as we maintain a full valuation allowance against our U.S. net deferred tax assets based upon the weight of objective evidence.

**Non-GAAP Financial Measures**

We use the following non-GAAP financial information, collectively, to evaluate our ongoing operations and for internal planning and forecasting purposes. Non-GAAP financial information is presented for supplemental informational purposes only, should not be considered a substitute for financial information presented in accordance with generally accepted accounting principles, and may be different from similarly titled non-GAAP measures used by other companies. Whenever we use a non-GAAP financial measure, a reconciliation is provided to the most closely applicable financial measure stated in accordance with generally accepted accounting principles. We believe that these non-GAAP financial measures may be useful to investors in analyzing our financial and operational performance.

***Adjusted EBITDA and adjusted EBITDA margin***

Adjusted EBITDA is a non-GAAP financial measure defined as net loss adjusted for interest expense, depreciation and amortization, stock-based compensation, income tax (benefit) / provision, acquisition-related expenses, restructuring expenses, change in fair value of warrants and derivative liabilities, certain dispute settlement expenses, gain on extinguishment of debt, certain non-recurring IPO related expenses, including the payroll taxes related to vesting of restricted stock and restricted stock units upon the completion of our IPO, and other (income) / expenses. Acquisition-related expenses and restructuring expenses primarily consist of severance and other employee-related costs which we do not expect to incur in the future as acquisitions of businesses may distort the comparability of the results of operations. Change in fair value of warrants and derivative liabilities is a non-cash expense related to periodically recording "mark-to-market" changes in the valuation of derivatives and warrants. Other (income) / expenses consists of non-cash expenses such as changes in fair value of acquisition-related liabilities, gains and losses on sales of assets and foreign exchange gains and losses. In particular, we believe that the exclusion of stock-based compensation, certain dispute settlement expenses and non-recurring IPO related expenses that are not related to our core operations provides measures for period-to-period comparisons of our business and provides additional insight into our core controllable costs. Adjusted EBITDA margin is a non-GAAP metric defined as adjusted EBITDA divided by the total revenues for the same period. Adjusted EBITDA and adjusted EBITDA margin provide us with a useful measure for period-to-period comparisons of our business as well as comparison to our peers. Our use of adjusted EBITDA and adjusted EBITDA margin has limitations as an analytical tool, and you should not consider these measures in isolation or as a substitute for analysis of our financial results as reported under GAAP. Because of these and other limitations, you should consider our non-GAAP measures only as supplemental to other GAAP-based financial performance measures, including revenues and net loss.

The following table reconciles adjusted EBITDA and adjusted EBITDA margin to net loss and net loss margin, the most directly comparable financial measure calculated and presented in accordance with GAAP.

| | Year ended December 31, | | |
|---|---|---|---|
| | 2022 | 2021 | 2020 |
| **Net loss** | **$ (279,239)** | **$ (249,563)** | **$ (53,225)** |
| **Net loss margin** | **(47.3)%** | **(54.4)%** | **(14.5)%** |
| Add back: | | | |
| Depreciation and amortization | 51,878 | 45,922 | 40,064 |
| Restructuring expenses | — | 727 | 2,090 |
| Acquisition-related expenses | 344 | 1,953 | 5,402 |
| Stock-based compensation | 298,992 | 259,159 | 105 |
| IPO related expenses | — | 2,705 | — |
| Gain on extinguishment of debt | — | (10,000) | — |
| Dispute settlement expense | — | 1,196 | — |
| Other expenses / (income) | 13,983 | (279) | (126) |
| Change in fair value of warrants and derivative liabilities | 410 | 5,000 | 28,100 |
| Interest expense | 7,303 | 7,033 | 16,257 |
| Income tax (benefit) / provision | (1,491) | (598) | 919 |
| **Adjusted EBITDA** | **$ 92,180** | **$ 63,255** | **$ 39,586** |
| **Adjusted EBITDA margin%** | **15.6%** | **13.8%** | **10.8%** |

## Liquidity and Capital Resources

We have financed our operations and capital expenditures primarily through utilization of cash generated from operations, as well as borrowings under our credit facilities. As of December 31, 2022, we had cash and cash equivalents of $121.1 million and net working capital, consisting of current assets less current liabilities, of $107.7 million. As of December 31, 2022, we had an accumulated deficit of $771.1 million.

We believe our existing cash and anticipated net cash provided by operating activities, together with available borrowings under our credit facility, will be sufficient to meet our working capital requirements for at least the next 12 months and thereafter for the foreseeable future. However, if our operating performance during the next 12 months is below our expectations, our liquidity and ability to operate our business could be adversely affected. Our future capital requirements and the adequacy of available funds will depend on many factors, including those set forth under "Risk Factors." In the future, we may attempt to raise additional capital through sales of equity securities or through equity linked or debt financing arrangements. Any future indebtedness we incur may result in terms that could be unfavorable to our equity investors. We cannot guarantee that we will be able to raise additional capital in the future on favorable terms, or at all. Any inability to raise capital could adversely affect our ability to achieve our business objectives.

### *Cash flows*

The following table summarizes our cash flows for the periods presented:

| | For year ended December 31, | | |
|---|---|---|---|
| | 2022 | 2021 | 2020 |
| **Net cash provided by / (used for):** | | | |
| Cash provided by operating activities | $ 78,486 | $ 44,292 | $ 35,539 |
| Cash used for investing activities | (48,445) | (46,849) | (25,207) |
| Cash (used for) / provided by financing activities | (12,625) | 55,732 | 2,783 |
| Effect of exchange rate changes on cash and cash equivalents | (165) | (41) | (208) |
| **Net increase in cash and cash equivalents, including restricted cash** | **$ 17,251** | **$ 53,134** | **$ 12,907** |

*Net cash provided by operating activities*

During the year ended December 31, 2022, net cash provided by operating activities of $78.5 million resulted primarily from adjusted non-cash items of $361.0 million, more than offsetting our net loss of $279.2 million. Non-cash items include stock-based compensation of $299.0 million, depreciation and amortization of $51.9 million, and a change in fair value of acquisition related liabilities of $13.0 million. Changes in working capital were primarily driven by an increase in accounts receivable of $19.8 million and a decrease in deferred revenue of $4.6 million, partially offset by an increase in accounts payable of $13.5 million and accrued expenses and other current liabilities of $8.0 million.

During the year ended December 31, 2021, net cash provided by operating activities of $44.3 million resulted primarily from adjusted non-cash items of $297.7 million, more than offsetting our net loss of $249.6 million. Non-cash items include stock-based compensation of $259.2 million, depreciation and amortization of $45.9 million, gain on extinguishment of debt of $10.0 million and a change in fair value of warrants and derivative liabilities of $5.0 million. Changes in working capital were primarily driven by a decrease in accounts payable of $22.2 million and an increase in prepaid expenses of $3.1 million, partially offset by an increase in accrued expenses and other current liabilities of $14.6 million, an increase in deferred revenue of $2.8 million and a decrease in other current assets of $5.7 million.

*Net cash used in investing activities*

During the year ended December 31, 2022, we used $48.4 million of cash in investing activities, primarily consisting of capital expenditures of $22.2 million (including a $18.6 million investment in data and partnership agreements), website and software development costs of $17.0 million and business and asset acquisitions of $9.2 million (net of cash acquired).

During the year ended December 31, 2021, we used $46.8 million of cash in investing activities, primarily consisting of $20.1 million (net of cash acquired) of business and asset acquisitions, investments in website and software development costs of $17.3 million and other capital expenditures of $9.5 million.

*Net cash provided by financing activities*

During the year ended December 31, 2022, we used $12.6 million of cash in financing activities, primarily due to the repurchase of $9.6 million of common stock repurchased under our repurchase and RSA withholdings program and payment of acquisition related liabilities of $6.0 million, partially offset by $2.7 million paid by certain employees under the Company's employee stock purchase plan.

During the year ended December 31, 2021, net cash provided by financing activities of $55.7 million was primarily due to IPO proceeds (net of issuance cost) of $126.5 million, new credit facility of $183.3 million (net of financing cost) and proceeds from our employee stock purchase plan of $0.8 million, partially offset by repayments against credit facilities of $180.7 million and payments made against acquisition-related liabilities for $9.9 million. Further, in connection with our IPO, we repurchased and canceled certain stock, including restricted stock and restricted stock units with a total repurchase amount of $64.5 million.

***Debt***

As of December 31, 2022, we have $184.0 million (net of $1.0 million of unamortized debt acquisition costs) of outstanding long-term borrowings.

On February 3, 2021, we entered into a $222.5 million Senior Secured Credit Facility which was used to fully repay and terminate our previous credit agreement. Borrowings under the debt are $185 million and bear interest payable quarterly ranging from LIBOR plus 2.125% to LIBOR plus 2.625% based on our consolidated net leverage ratio stated in the credit agreement. We are required to repay the principal balance and any unpaid accrued interest on the Senior Secured Credit Facility on February 3, 2026.

We are currently in compliance with our financial maintenance covenants under the Senior Secured Credit Facility and, based upon our current expectations, believe that we will continue to comply with our financial maintenance covenants for the next 12 months. The Senior Secured Credit Facility contains restrictive covenants that place restrictions on us and may limit our ability to, among other things, incur additional debt and liens, purchase our securities, undertake transactions with affiliates, make other investments, pay dividends or distribute excess cash flow.

On April 23, 2020, we entered into a promissory note evidencing an unsecured $10 million loan under the Paycheck Protection Program (“PPP Loan”) of the Coronavirus Aid, Relief and Economic Security Act (the “CARES Act”) administered by the U.S. Small Business Administration (“SBA”). We accounted for the loan as a financial liability in accordance with ASC Topic 470, Debt. Accordingly, the loan was recognized within long-term debt. We used the proceeds from the loan for payroll, rent and utilities and certain other approved expenses during the eight-week period commencing on the loan effective date. On June 10, 2021, we received a notice from SBA stating full forgiveness of the principal amount of $10 million and the related interest therein.

During the year ended December 31, 2022, we borrowed $5.6 million against the revolver facility and repaid the same amount against the term loan under the credit facility.

We do not engage in off-balance sheet financing arrangements.

***Contractual obligations***

As of December 31, 2022, our material contractual obligations were as follows:

| | Total | <1 Year | 1-3 Years | 3-5 Years | > 5 Years |
|---|---|---|---|---|---|
| Long-term borrowings | $ 225,666 | $ 23,850 | $ 53,182 | $ 148,634 | $ — |
| Operating leases | 11,873 | 2,723 | 3,991 | 3,294 | 1,865 |
| Purchase obligations | 77,174 | 37,953 | 37,796 | 1,425 | — |
| **Total contractual obligations** | **$ 314,713** | **$ 64,526** | **$ 94,969** | **$ 153,353** | **$ 1,865** |

Acquisition-related contingent consideration payables and holdback payables are contractual obligations for which the timing of cash out flow cannot be estimated. Contingent consideration estimates may change based on actual results and may differ from management’s current expectations. For more information refer to Note 7 and Note 8 to our consolidated financial statements and notes thereto included in the “Financial Statements and Supplementary Data” section of this Annual Report on Form 10-K.

***Share Repurchase Program***

In August 2022, the Company's Board of Directors authorized a share repurchase program to repurchase up to $50 million of our outstanding Class A common stock through December 31, 2024 (the "2022 SRP"). The actual timing, number and value of shares repurchased will be determined by the Company at its discretion and will depend on a number of factors, including market conditions, applicable legal requirements, our capital needs, and whether there is a better alternative use of capital. Repurchases during any given fiscal period under the 2022 SRP and withholding under the RSA withholding program (as described below) will reduce the number of weighted-average common shares outstanding for the period. See Item 5 "Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities—Purchases of Equity Securities by the Issuer or Affiliated Purchaser" for more information on the 2022 SRP.

***RSA Withholding Program***

In August 2022, the Company's Board of Directors authorized withholding as an alternative to market sales by executives to satisfy tax withholding requirements upon vesting of restricted stock awards ( "RSAs"). As such, we may use corporate cash to make required tax payments associated with the vesting of certain executive RSAs and withhold a corresponding number of shares from such executives.

## Quarterly Financial Information (Unaudited)

The following table set forth the Company's quarterly consolidated statement of operations data for each of the eight quarters in the two-year period ended December 31, 2022. The Company has prepared the quarterly unaudited consolidated statements of operations data on a basis consistent with the audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K. In the opinion of management, the financial information in these tables reflects all adjustments, consisting only of normal recurring adjustments, which management considers necessary for a fair statement of this data. This information should be read in conjunction with the audited consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K. The results of historical periods are not necessarily indicative of the results for any future period.

| | Quarter ended | | | |
|---|---|---|---|---|
| | March 31, 2022 | June 30, 2022 | September 30, 2022 | December 31, 2022 |
| **Revenues** | $ 126,268 | $ 137,301 | $ 152,252 | $ 175,140 |
| **Operating expenses:** | | | | |
| Cost of revenues (excluding depreciation and amortization) | 41,725 | 50,233 | 57,529 | 65,979 |
| General and administrative expenses | 53,349 | 55,665 | 53,584 | 51,017 |
| Selling and marketing expenses | 68,918 | 77,139 | 76,987 | 76,194 |
| Research and development expenses | 17,231 | 18,038 | 16,954 | 17,231 |
| Depreciation and amortization | 12,766 | 13,315 | 13,367 | 12,430 |
| Acquisition-related expenses | 344 | — | — | — |
| **Total operating expenses** | **$ 194,333** | **$ 214,390** | **$ 218,421** | **$ 222,851** |
| Loss from operations | (68,065 ) | (77,089 ) | (66,169 ) | (47,711 ) |
| Interest expense | 1,298 | 1,666 | 2,038 | 2,301 |
| Other expenses / (income) | 5,273 | 5,696 | 1,142 | 1,872 |
| Change in fair value of warrants and derivative liabilities | — | 1,215 | (805 ) | — |
| Total other expenses | $ 6,571 | $ 8,577 | $ 2,375 | $ 4,173 |
| Loss before income taxes | (74,636 ) | (85,666 ) | (68,544 ) | (51,884 ) |
| Income tax (benefit) / provision | (2,599 ) | 343 | 896 | (131 ) |
| **Net loss** | **$ (72,037 )** | **$ (86,009 )** | **$ (69,440 )** | **$ (51,753 )** |
| Other comprehensive (income) / loss: | | | | |
| Foreign currency translation adjustment | 244 | 403 | 774 | (1,477 ) |
| **Total comprehensive loss** | **$ (72,281 )** | **$ (86,412 )** | **$ (70,214 )** | **$ (50,276 )** |
| Basic loss per share | **$ (0.54 )** | **$ (0.63 )** | **$ (0.49 )** | **$ (0.36 )** |
| Diluted loss per share | **$ (0.54 )** | **$ (0.63 )** | **$ (0.49 )** | **$ (0.36 )** |
| **Weighted average number of shares used to compute net loss per share** | | | | |
| Basic | **134,084,703** | **135,903,592** | **140,594,128** | **145,489,764** |
| Diluted | **134,084,703** | **135,903,592** | **140,594,128** | **145,489,764** |

The Company recorded total stock-based compensation as follows:

| | Quarter ended | | | |
|---|---|---|---|---|
| | March 31, 2022 | June 30, 2022 | September 30, 2022 | December 31, 2022 |
| Cost of revenues (excluding depreciation and amortization) | $ 1,162 | $ 1,738 | $ 1,536 | $ 2,198 |
| General and administrative expenses | 29,775 | 30,905 | 28,193 | 24,528 |
| Selling and marketing expenses | 36,807 | 42,090 | 38,868 | 34,612 |
| Research and development expenses | 5,992 | 7,602 | 6,621 | 6,365 |
| **Total** | **$ 73,736** | **$ 82,335** | **$ 75,218** | **$ 67,703** |

## Critical Accounting Policies and Estimates

Our financial statements are prepared in accordance with U.S. GAAP. The preparation of our financial statements in conformity with U.S. GAAP requires us to make estimates and assumptions that affect reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and reported amounts of revenues and expenses during the reporting period. Estimates are based on management judgment and the best available information, and as such actual results could differ from those estimates.

While our significant accounting policies are described in more detail in Note 2 in our consolidated financial statements included in the "Financial Statements and Supplementary Data" section of this this Annual Report on Form 10-K, we believe that the following accounting policies are those most critical to the judgments and estimates used in the preparation of our financial statements.

### *Revenue recognition*

Revenue arises primarily from our technology platform via subscription fees, volume-based utilization fees and fees for professional services designed to increase our customers' usage of our technology platform. Sales and other taxes collected by us concurrent with revenue-producing activities are excluded from revenues.

We may incur third-party costs on behalf of customers, including direct costs and incidental costs. Third-party direct costs incurred in connection with the delivery of advertising or marketing services include, among others: purchased media, data, cost of physical mailers, and procurement cost of Internet Protocol Addresses ("IPs") used in the emailing services. The inclusion of billings related to third-party direct costs in revenues depends on whether we act as a principal or as an agent in the customer arrangement. In certain contracts, we contract with customers to provide access to our software platform available through different pricing options to tailor to multiple customer types and customer needs. These options include fixed or minimum monthly subscription fees, fixed cost per mile and percentage of spend on third-party costs. We generate revenue when the software platform is used on a self-service basis by charging a platform fee that is either a percentage of spend or a flat monthly subscription fee as well as fees for additional features such as data and advanced reporting. As we do not obtain control of the ad spots prior to transfer to the customer in these arrangements, revenue is recognized on a net basis. We may also act as principal when contracting for third-party services on behalf of our customers, because we control the specified goods or services before they are transferred to the customer and we are responsible for providing the specified goods or services, or we are responsible for directing and integrating third-party vendors to fulfill our performance obligation at the agreed upon contractual price. In such arrangements, we also take pricing risk under the terms of the customer contract. In certain media buying businesses, we act as principal when we control the buying process for the purchase of the media and contract directly with the media vendor. In these arrangements, we assume the pricing risk under the terms of the customer contract. In such cases, we include billable amounts related to third-party costs in the transaction price and record revenues at the gross amount billed, consistent with the manner that revenues are recognized for the underlying services contract.

Revenues from certain contracts with customers are subject to variability due to cash incentives and credit notes, therefore, revenues are recognized but subject to the constraint on the variable consideration, i.e. only to the extent that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved.

Contracts with customers may include multiple services. We determine whether those services are distinct from each other, and therefore performance obligations are to be accounted for separately, or not distinct from each other, and therefore part of a single performance obligation.

We determine the standalone selling price for various performance obligations in the customer contracts that require significant judgement.

We have certain revenue contracts with our vendors that involve both the purchase and sale of services with a single counterparty. We assess each contract to determine if the revenue and expense should be presented gross or net.

### *Website and software development costs*

We capitalize the cost of internally developed software that has a useful life in excess of one year. These costs consist of the salaries and benefits of employees working on such software development to customize it to our needs. Capitalization begins during the application development stage, once the preliminary project stage has been completed. We assess whether an enhancement creates additional functionality to the software, and qualifies the costs incurred for capitalization. Once a project is available for general release, capitalization ceases and we estimate the useful life of the asset and begin amortization using the straight-line method.

We annually assess whether triggering events are present to review internal-use software for impairment. The estimated useful life of our website and software development costs is three years.

We determine the amount of internal software costs to be capitalized based on the amount of time spent by our developers on projects in the application stage of development. There is judgment involved in estimating the time allocated to a particular project in the application stage. A significant change in the time spent on each project could have a material impact on the amount capitalized and the related amortization expense in subsequent periods.

***Intangible assets, net***

We record intangible assets at cost less accumulated amortization. Cost of intangible assets acquired through business combinations represents their fair market value at the date of acquisition. Amortization is calculated using the straight-line method which is consistent with the realization of cash flows over the weighted average useful lives of the intangible assets.

We also purchase and license data content from multiple data providers to develop the proprietary databases of information for client use. This data content sometime consists of consumer information like name, address, phone numbers, zip codes, gender, age group, etc. and it may also consist of business information industry, sales volume, physical address, financial information, credit score, etc. We capitalize the intangible assets as the data contents are received from the third parties as we expect those assets to provide future economic benefit via the generation of our revenue and margins. The intangible assets are amortized on a straight-line basis over the estimated useful life of the data asset. We review the carrying value of our definite-lived intangible assets for impairment whenever events and circumstances indicate that the carrying value of an asset may not be recoverable from the estimated future cash flows expected to result from its use and eventual disposition. If these future undiscounted cash flows are less than the carrying value of the asset, then the carrying amount of the asset is written down to its fair value, based on the related estimated discounted future cash flows. Factors considered by management in performing this assessment include current operating results, trends and prospects, the manner in which the intangible assets are used, and the effects of obsolescence, demand, competition and other economic factors.

***Fair value***

We account for all stock options using a fair value-based method. The fair value of each stock option granted to employees is estimated on the date of the grant using the Black-Scholes-Merton option pricing model, and the related stock-based compensation is recognized over the expected life of the option. We account for our Employee Stock Purchase Plan (“ESPP”) and Performance Stock Units (“PSU”) using a fair value-based method. The fair value of ESPP was determined using the Black-Sholes-Merton model and PSU was determined using the Monte-Carlo Simulation Method, and the related stock-based compensation is recognized over the expected vesting term.

Key assumptions used to determine the fair value of stock options, ESPPs and PSUs were as follows:

- Risk-free interest rate: The risk-free interest rate is based on the U.S. Treasury rates at the time of grant that approximate the expected term of the option.
- Expected dividend yield: We have never declared or paid any dividends and do not expect to pay any dividends in the foreseeable future.
- Expected term: We estimate the expected term using the “simplified method” as we do not have sufficient historical exercise data.
- Current value of the underlying asset: This is based on the VWAP (volume weighted average price) of our stock as of the date of issuance of PSUs.
- Expected volatility: Expected volatility is estimated by considering the historical volatility of similar publicly-traded companies for which share price information is available.

***Business combination and goodwill***

We utilize the purchase method of accounting in accordance with ASC 805, Business Combinations. This standard requires that the total cost of an acquisition be allocated to the tangible and intangible assets acquired and liabilities assumed based on the fair value of the tangible and intangible assets acquired and liabilities assumed at the acquisition date. Our estimates and assumptions used in assessing fair value are inherently uncertain and subject to refinement. During the measurement period, which may be up to one year from the acquisition date, we may record adjustments to the fair value of these tangible and intangible assets

acquired and liabilities assumed, with the corresponding offset to goodwill. In addition, uncertain tax positions and tax-related valuation allowances are initially recorded in connection with a business combination as of the acquisition date. The fair value of contingent consideration is recalculated each reporting period with any resulting gains or losses recorded on the Consolidated Statements of Operations and Comprehensive Loss.

We perform an annual goodwill impairment test on October 1 every year based on financial statements as of September 30. Goodwill impairment is assessed based on a comparison of the fair value of our reporting units to the underlying carrying value of the reporting unit's net assets, including goodwill. As of December 31, 2022, we have four reporting units. If the carrying value of the reporting unit exceeds its fair value, an impairment loss shall be recognized, in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit. For the years ended December 31, 2022 and 2021, annual goodwill impairment test, we elected to bypass the qualitative assessment for the four reporting units and proceeded directly to the quantitative impairment test using a discounted cash flow method to estimate the fair value of the reporting units. As a result of this assessment, it was concluded that there was no impairment loss because the fair value of the reporting units significantly exceeded the respective carrying value of each reporting unit.

**Recently Issued Accounting Pronouncements**

A description of recently issued accounting pronouncements that may potentially impact our financial condition and results of operations is disclosed in Note 2 to our consolidated financial statements and notes thereto included in the "Financial Statements and Supplementary Data" section of this Annual Report on Form 10-K.

**Emerging Growth Company Status**

We are an emerging growth company, as defined in the JOBS Act. Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until those standards apply to private companies. We have elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date that we (i) are no longer an emerging growth company or (ii) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, our consolidated financial statements may not be comparable to companies that comply with the new or revised accounting pronouncements as of public company effective dates. The JOBS Act does not preclude an emerging growth company from early adopting new or revised accounting standards. We expect to use the extended transition period for any new or revised accounting standards during the period we remain an emerging growth company.

**Item 7A. Quantitative and Qualitative Disclosures About Market Risk.**

We are exposed to market risk in the ordinary course of business. Market risk represents the risk of loss that may impact our financial condition due to adverse changes in financial market prices and rates. Our market risk exposure is primarily a result of fluctuations in interest rates and foreign currency exchange risks. We do not hold or issue financial instruments for speculative or trading purposes.

***Interest Rate Risk***

We are exposed to market risk from changes in interest rates on our long-term borrowings, which accrue interest at a variable rate. As of December 31, 2022, we have not entered into any derivative financial instrument contracts to mitigate the interest rate risk on our $185 million debt, and as a result, we are subject to the potential impact of rising interest rates, which could negatively impact our profitability and cash flows. Based upon the principal balance owed on our long-term borrowings as of December 31, 2022, a hypothetical one percentage point increase or decrease in the rate of interest would result in an increase or decrease in our annual interest expenses by $1.9 million. There were no material changes in market risk exposures as of December 31, 2022. For more information, see Note 11 to our audited consolidated financial statements and notes thereto included in the Financial Statements and Supplementary Data section of this Annual Report on Form 10-K.

***Foreign Currency Risk***

We have foreign currency risks related to a certain number of our foreign subsidiaries, in the UK, France, Belgium and India. We do not believe that a 10% change in the relative value of the U.S. dollar to other foreign currencies would have a material effect on our cash flows and operating results in currencies other than the U.S. dollar.

***Inflation Risk***

In 2022, inflation increased significantly in the United States and overseas, resulting in rising wages and other costs. We do not believe that inflation had a material effect on our business, financial condition or results of operations. However, if our costs were to become subject to significant inflationary pressures, we may not be able to fully offset higher costs through price increases and our inability or failure to do so could potentially harm our business, financial condition, and results of operations.

**Item 8. Financial Statements and Supplementary Data.**

## INDEX TO CONSOLIDATED FINANCIAL STATEMENTS


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## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Zeta Global Holdings Corp.

**Opinion on the Financial Statements**

We have audited the accompanying consolidated balance sheets of Zeta Global Holdings Corp. and subsidiaries (the "Company") as of December 31, 2022 and 2021, the related consolidated statements of operations and comprehensive loss, changes in redeemable convertible preferred stock and stockholders' equity / (deficit) and cash flows for each of the three years in the period ended December 31, 2022, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021 and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

**Basis for Opinion**

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

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the 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.

/s/ Deloitte & Touche LLP

Baltimore, Maryland

February 24, 2023

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

**Consolidated Balance Sheets**
**(In thousands, except share and per share amounts)**

| | As of December 31, | |
|---|---|---|
| | **2022** | **2021** |
| **Assets** | | |
| Current assets: | | |
| Cash and cash equivalents | **$ 121,110** | $ 103,859 |
| Accounts receivable, net of allowance of $1,882 and $1,295 as of December 31, 2022 and December 31, 2021, respectively | **106,322** | 83,578 |
| Prepaid expenses | **7,150** | 6,970 |
| Other current assets | **1,866** | 1,649 |
| Total current assets | **236,448** | 196,056 |
| Non-current assets: | | |
| Property and equipment, net | **5,981** | 5,630 |
| Website and software development costs, net | **36,713** | 38,038 |
| Right-to-use asset - operating leases, net | **7,388** | — |
| Intangible assets, net | **44,358** | 40,963 |
| Goodwill | **133,069** | 114,509 |
| Deferred tax assets, net | **745** | 956 |
| Other non-current assets | **1,800** | 1,113 |
| Total non-current assets | **230,054** | 201,209 |
| Total assets | **$ 466,502** | $ 397,265 |
| **Liabilities and Stockholders' Equity** | | |
| Current liabilities: | | |
| Accounts payable | **$ 33,668** | $ 21,711 |
| Accrued expenses | **72,364** | 63,979 |
| Acquisition-related liabilities (current) | **14,743** | 8,042 |
| Deferred revenue | **2,228** | 6,866 |
| Other current liabilities | **5,707** | 5,159 |
| Total current liabilities | **128,710** | 105,757 |
| Non-current liabilities: | | |
| Long-term borrowings | **183,953** | 183,613 |
| Acquisition-related liabilities (non-current) | **17,932** | 14,915 |
| Other non-current liabilities | **7,877** | 2,492 |
| Total non-current liabilities | **209,762** | 201,020 |
| Total liabilities | **338,472** | 306,777 |
| Commitments and contingencies (See Note 12) | | |
| **Stockholders' equity:** | | |
| Class A common stock $ 0.001 per share par value, up to 3,750,000,000 shares authorized, 175,266,917 and 159,974,847 shares issued and outstanding as of December 31, 2022 and December 31, 2021, respectively | **175** | 160 |
| Class B common stock $ 0.001 per share par value, up to 50,000,000 shares authorized, 32,099,302 and 37,856,095 shares issued and outstanding as of December 31, 2022 and December 31, 2021, respectively | **32** | 38 |
| Additional paid-in capital | **900,924** | 584,208 |
| Accumulated deficit | **(771,056)** | (491,817) |
| Accumulated other comprehensive loss | **(2,045)** | (2,101) |
| Total stockholders' equity | **128,030** | **90,488** |
| Total liabilities and stockholders' equity | **$ 466,502** | **$ 397,265** |

See accompanying notes to consolidated financial statements.

**Consolidated Statements of Operations and Comprehensive Loss**
**(In thousands, except share and per share amounts)**

| | Year ended December 31, | | |
|---|---|---|---|
| | **2022** | **2021** | **2020** |
| **Revenues** | **$ 590,961** | $ 458,338 | $ 368,120 |
| **Operating expenses:** | | | |
| Cost of revenues (excluding depreciation and amortization) | **215,466** | 174,720 | 148,878 |
| General and administrative expenses | **213,615** | 189,606 | 70,849 |
| Selling and marketing expenses | **299,238** | 229,343 | 77,140 |
| Research and development expenses | **69,454** | 64,474 | 31,772 |
| Depreciation and amortization | **51,878** | 45,922 | 40,064 |
| Acquisition-related expenses | **344** | 1,953 | 5,402 |
| Restructuring expenses | **—** | 727 | 2,090 |
| **Total operating expenses** | **$ 849,995** | $ 706,745 | $ 376,195 |
| **Loss from operations** | **(259,034)** | (248,407) | (8,075) |
| Interest expense | **7,303** | 7,033 | 16,257 |
| Other expenses / (income) | **13,983** | (279) | (126) |
| Gain on extinguishment of debt | **—** | (10,000) | — |
| Change in fair value of warrants and derivative liabilities | **410** | 5,000 | 28,100 |
| Total other expenses | **$ 21,696** | $ 1,754 | $ 44,231 |
| Loss before income taxes | **(280,730)** | (250,161) | (52,306) |
| Income tax (benefit) / provision | **(1,491)** | (598) | 919 |
| **Net loss** | **$ (279,239)** | **$ (249,563)** | **$ (53,225)** |
| Other comprehensive (income) / loss: | | | |
| Foreign currency translation adjustment | **(56)** | 64 | 190 |
| **Total comprehensive loss** | **$ (279,183)** | **$ (249,627)** | **$ (53,415)** |
| **Net loss per share** | | | |
| Net loss | **$ (279,239)** | $ (249,563) | $ (53,225) |
| Cumulative redeemable convertible preferred stock dividends | — | 7,060 | 19,571 |
| **Net loss available to common stockholders** | **$ (279,239)** | **$ (256,623)** | **$ (72,796)** |
| Basic loss per share | **$ (2.01)** | $ (2.95) | $ (2.23) |
| Diluted loss per share | **$ (2.01)** | $ (2.95) | $ (2.23) |
| **Weighted average number of shares used to compute net loss per share** | | | |
| Basic | **138,985,265** | 86,932,191 | 32,589,409 |
| Diluted | **138,985,265** | 86,932,191 | 32,589,409 |

The Company recorded total stock-based compensation as follows:

| | Year ended December 31, | | |
|---|---|---|---|
| | **2022** | **2021** | **2020** |
| Cost of revenues (excluding depreciation and amortization) | **$ 6,634** | $ 2,589 | $ — |
| General and administrative expenses | **113,401** | 100,160 | 105 |
| Selling and marketing expenses | **152,377** | 129,577 | — |
| Research and development expenses | **26,580** | 26,833 | — |
| **Total** | **$ 298,992** | **$ 259,159** | **$ 105** |

See accompanying notes to consolidated financial statements.

## Consolidated Statements of Changes in Redeemable Convertible Preferred Stock and Stockholders' Equity / (Deficit)
## Years Ended December 31, 2022, 2021 and 2020
## (In thousands, except shares)

| | Redeemable Convertible Preferred Stock | | Series A common stock | | Series B common stock | | Class A common stock | | Class B common stock | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | Shares | Amount | Shares | Amount | Shares | Amount | Shares | Amount | Additional Paid-in Capital | Accumulated Deficit | Accumulated Other Comprehensive Loss | Total |
| **Balance as of January 1, 2020** | **39,223,194** | **$ 154,210** | **99,339,942** | **$ 99** | **3,054,318** | **$ 3** | **—** | **—** | **—** | **—** | **$ 4,440** | **$ (189,029)** | **$ (1,847)** | **$ (186,334)** |
| Shares issued in connection with an agreement | — | — | 154,560 | — | — | — | — | — | — | 0 | 424 | — | — | 424 |
| Restricted stock grants | — | — | 14,508,504 | 15 | — | — | — | — | — | — | (15) | — | — | — |
| Restricted stock forfeitures | — | — | (1,990,313) | (2) | — | — | — | — | — | — | 2 | — | — | — |
| Stock-based compensation | — | — | — | — | — | — | — | — | — | — | 105 | — | — | 105 |
| Foreign currency translation adjustment | — | — | — | — | — | — | — | — | — | — | — | — | (190) | (190) |
| Net loss | — | — | — | — | — | — | — | — | — | — | — | (53,225) | — | (53,225) |
| **Balance as of December 31, 2020** | **39,223,194** | **$ 154,210** | **112,012,693** | **$ 112** | **3,054,318** | **$ 3** | **—** | **$ —** | **—** | **$ —** | **$ 4,956** | **$ (242,254)** | **$ (2,037)** | **$ (239,220)** |
| Conversion of Series A and Series B common stock into Class A and Class B common stock, respectively | — | — | (96,830,836) | (97) | (3,054,318) | (3) | 60,421,367 | 61 | 39,463,787 | 39 | — | — | — | — |
| Conversion of redeemable convertible preferred stock to common stock | (39,223,194) | (154,210) | — | — | — | — | 73,813,713 | 74 | — | — | 193,136 | — | — | 193,210 |
| Warrants and options exercised | — | — | — | — | — | — | 8,392,316 | 8 | — | — | 24,230 | — | — | 24,238 |
| Shares issued in connection with the Initial Public Offering, net of issuance cost | — | — | — | — | — | — | 14,773,939 | 15 | — | — | 126,523 | — | — | 126,538 |
| Shares repurchased | — | — | — | — | — | — | (4,138,866) | (4) | (2,307,692) | (2) | (64,462) | — | — | (64,468) |
| Restricted stock cancelation | — | — | (17,853,416) | (18) | — | — | — | — | — | — | 18 | — | — | — |
| Shares issued in connection with certain agreements | — | — | 613,497 | 1 | — | — | 4,124,914 | 4 | — | — | 29,645 | — | — | 29,650 |
| Restricted stock grants | — | — | 3,687,431 | 4 | — | — | 5,989,392 | 6 | 700,000 | 1 | (11) | — | — | — |
| Restricted stock forfeitures | — | — | (1,629,369) | (2) | — | — | (3,736,010) | (4) | — | — | 6 | — | — | — |
| Common shares cancelation | — | — | — | — | — | — | (37,679) | — | — | — | — | — | — | — |
| Restricted stock units vesting | — | — | — | — | — | — | 219,072 | — | — | — | — | — | — | — |
| Shares issued in connection with employee stock purchase plan | — | — | — | — | — | — | 152,689 | — | — | — | 809 | — | — | 809 |
| Stock-based compensation | — | — | — | — | — | — | — | — | — | — | 269,358 | — | — | 269,358 |
| Foreign currency translation adjustment | — | — | — | — | — | — | — | — | — | — | — | — | (64) | (64) |
| Net loss | — | — | — | — | — | — | — | — | — | — | — | (249,563) | — | (249,563) |
| **Balance as of December 31, 2021 [1]** | **—** | **$ —** | **—** | **$ —** | **—** | **$ —** | **159,974,847** | **$ 160** | **37,856,095** | **$ 38** | **$ 584,208** | **$ (491,817)** | **$ (2,101)** | **$ 90,488** |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shares issued in connection with certain agreements | — | — | — | — | — | — | 2,065,833 | 2 | — | — | 19,003 | — | — | 19,005 |
| Restricted stock grants | — | — | — | — | — | — | 9,054,271 | 9 | — | — | (9 ) | — | — | — |
| Shares issued with connection with employee stock purchase plan | — | — | — | — | — | — | 409,997 | — | — | — | 2,742 | — | — | 2,742 |
| Shares repurchased | — | — | — | — | — | — | (1,209,015 ) | (1 ) | — | — | (9,606 ) | — | — | (9,607 ) |
| Restricted stock forfeitures | — | — | — | — | — | — | (1,328,744 ) | (1 ) | — | — | 1 | — | — | — |
| Class B common stock transferred to Class A common stock | — | — | — | — | — | — | 5,756,793 | 6 | (5,756,793 ) | (6 ) | — | — | — | — |
| Options exercised | — | — | — | — | — | — | 315,430 | — | — | — | 199 | — | — | 199 |
| Stock-based compensation | — | — | — | — | — | — | — | — | — | — | 304,386 | — | — | 304,386 |
| Restricted stock units vesting | — | — | — | — | — | — | 227,505 | — | — | — | — | — | — | — |
| Foreign currency translation adjustment | — | — | — | — | — | — | — | — | — | — | — | — | 56 | 56 |
| Net loss | — | — | — | — | — | — | — | — | — | — | — | (279,239 ) | — | (279,239 ) |
| **Balance as of December 31, 2022** [2] | **—** | **$ —** | **—** | **$ —** | **—** | **$ —** | **175,266,917** | **$ 175** | **32,099,302** | **$ 32** | **$ 900,924** | **$ (771,056 )** | **$ (2,045 )** | **$ 128,030** |

1. Includes 115,456,543 outstanding Class A common stock, 18,419,260 outstanding Class B common stock, 44,518,304 unvested Class A restricted stock and 19,436,835 unvested Class B restricted stock.
2. Includes 132,909,894 outstanding Class A common stock, 15,512,217 outstanding Class B common stock, 42,357,023 unvested Class A restricted stock and 16,587,085 unvested Class B restricted stock.

See accompanying notes to consolidated financial statements.

**Consolidated Statements of Cash Flows**
**(In thousands)**

| | Year ended December 31, | | |
|---|---|---|---|
| | **2022** | **2021** | **2020** |
| **Cash flows from operating activities:** | | | |
| Net loss | **$ (279,239)** | $ (249,563) | $ (53,225) |
| Adjustments to reconcile net loss to net cash provided by operating activities: | | | |
| Depreciation and amortization | **51,878** | 45,922 | 40,064 |
| Stock-based compensation | **298,992** | 259,159 | 105 |
| Gain on extinguishment of debt | **—** | (10,000) | — |
| Deferred income taxes | **(2,668)** | (2,475) | (98) |
| Change in fair value of warrant and derivative liabilities | **410** | 5,000 | 28,100 |
| Change in fair value of acquisition-related liabilities | **12,990** | (1,823) | 299 |
| Others, net | **(592)** | 1,868 | 3,881 |
| Change in non-cash working capital (net of acquisitions): | | | |
| Accounts receivable | **(19,826)** | (1,155) | 24,347 |
| Prepaid expenses | **(270)** | (3,067) | (551) |
| Other current assets | **(214)** | 5,725 | 632 |
| Other non-current assets | **63** | (592) | 1,479 |
| Deferred revenue | **(4,566)** | 2,813 | 2,402 |
| Accounts payable | **13,530** | (22,243) | 4,443 |
| Accrued expenses and other current liabilities | **10,001** | 14,618 | (15,491) |
| Other non-current liabilities | **(2,003)** | 105 | (848) |
| **Net cash provided by operating activities** | **78,486** | 44,292 | 35,539 |
| **Cash flows from investing activities:** | | | |
| Capital expenditures | **(22,232)** | (9,482) | (2,249) |
| Website and software development costs | **(17,004)** | (17,274) | (22,958) |
| Business and asset acquisitions, net of cash acquired | **(9,209)** | (20,093) | — |
| **Net cash used for investing activities** | **(48,445)** | (46,849) | (25,207) |
| **Cash flows from financing activities:** | | | |
| Cash paid for acquisition-related liabilities | **(5,959)** | (9,850) | (717) |
| Proceeds from pay-check protection program loan | **—** | — | 10,000 |
| Proceeds from credit facilities, net of issuance cost | **5,625** | 183,311 | — |
| Proceeds from initial public offering, net of issuance cost | **—** | 126,538 | — |
| Repurchase of shares | **(9,607)** | (64,468) | — |
| Proceeds from employees' stock purchase plan | **2,742** | 809 | — |
| Exercise of warrants and options | **199** | 137 | — |
| Repayments against the credit facilities | **(5,625)** | (180,745) | (6,500) |
| **Net cash (used for) / provided by financing activities** | **(12,625)** | 55,732 | 2,783 |
| Effect of exchange rate changes on cash and cash equivalents | **(165)** | (41) | (208) |
| **Net increase in cash and cash equivalents, including restricted cash** | **17,251** | 53,134 | 12,907 |
| Cash and cash equivalents and restricted cash, beginning of period | **103,859** | 50,725 | 37,818 |
| **Cash and cash equivalents and restricted cash, end of period** | **$ 121,110** | $ 103,859 | $ 50,725 |
| **Supplemental cash flow disclosures including non-cash activities:** | | | |
| Cash paid for interest, net | **$ 5,673** | $ 7,004 | $ 13,070 |
| Cash paid for income taxes, net | **$ 1,611** | $ 1,758 | $ 1,296 |
| Liability established in connection with acquisitions | **$ 20,529** | $ 10,185 | $ — |
| Capitalized stock-based compensation as website and software development costs | **$ 5,394** | $ 10,196 | $ — |
| Shares issued in connection with acquisitions and other agreements | **$ 19,005** | $ 29,650 | $ 424 |
| Dividends on redeemable convertible preferred stock settled in Company's equity | **$ —** | $ 60,082 | $ — |
| Non-cash settlement of warrants and derivative liabilities | **$ 410** | $ 63,100 | $ — |
| Right-to-use asset established | **$ 9,559** | $ — | $ — |
| Operating lease liabilities established | **$ 12,050** | $ — | $ — |
| Non-cash consideration for website and software development costs | **$ 1,654** | $ 1,551 | $ 1,110 |

See accompanying notes to consolidated financial statements.

## NOTE 1—Organization and Background

### *(a) Nature of Business*

Zeta Global Holdings Corp., a Delaware Corporation ("Zeta" or "Zeta Global Holdings") and Zeta Global Corp., a Delaware Corporation and the operating company ("Zeta Global" individually, or collectively with Zeta Global Holdings Corp. and its consolidated entities, as context dictates, the "Company") is a marketing technology company that uses proprietary data, artificial intelligence and software to create a technology platform that enables marketers to acquire, retain and grow customer relationships. The Company's technology platform powers data-driven marketing programs for enterprises across a wide range of industries and utilizes all digital distribution channels including email, search, social, mobile, display and connected TV. Zeta Global was incorporated and began operations in October 2007.

### *(b) Initial Public Offering ("IPO")*

On June 9, 2021, the Company's registration statement on Form S-1 relating to the IPO of its Class A common stock was declared effective by the Securities and Exchange Commission ("SEC"). In connection with the IPO, on June 14, 2021, the Company issued and sold 14,773,939 shares of Class A common stock at a public offering price of $10 per share for net proceeds of $132.7 million, after deducting underwriters' discounts and commissions (but excluding other offering expenses and reimbursements of $6.2 million). The Company used a portion of proceeds from its IPO (i) to satisfy the tax withholding and remittance obligations of holders of its outstanding restricted stock and restricted stock units that vested in connection with the offering by repurchasing and canceling 1,799,650 shares of Class A restricted stock, 197,490 shares of Class B restricted stock and 92,671 restricted stock units (the "Tax Withholding Repurchase"); (ii) to repurchase and cancel 2,158,027 shares of Class A restricted stock and 88,518 restricted units at the election of certain holders (the "Class A Stock Repurchase"); (iii) to repurchase and cancel 1,767,692 shares of Class B common stock and 342,510 shares of restricted Class B common stock from its Chief Executive Officer and Co-Founder, David Steinberg (the "Class B Stock Repurchase"); and (iv) for general corporate purposes, including working capital, operating expenses and capital expenditures, although the Company did not designate any specific uses. The Company has used and may also use in future a portion of the net proceeds to fund possible investments in, or acquisitions of, complementary businesses, services or technologies.

### *(c) Reorganization Transactions*

In connection with the IPO, the Company completed the following transactions ("Reorganization Transactions"):

- As per the amended and restated certificate of incorporation, the authorized capital stock consists of 3,750,000,000 shares of Class A common stock, par value $0.001 per share, 50,000,000 shares of Class B common stock, par value $0.001 per share, and 200,000,000 shares of preferred stock, par value $0.001 per share.

The number of shares outstanding as of June 14, 2021 was 152,270,401 shares of Class A common stock and 37,856,095 shares of Class B common stock after giving effect to the following transactions upon the Company's IPO:

- the conversion of 39,223,194 outstanding shares, and unpaid dividends on such outstanding shares, of its Series A preferred stock, Series B-1 preferred stock, Series B-2 preferred stock, Series C preferred stock, Series E preferred stock, Series E-1 preferred stock, Series F preferred stock, Series F-1 preferred stock, Series F-2 preferred stock, Series F-3 preferred stock and Series F-4 preferred stock into 73,813,713 shares of its Class A common stock immediately prior to the completion of the IPO (the "Preferred Conversion");
- 8,360,331 shares of its Class A common stock issued in connection with the exercise of outstanding warrants (the "Warrants Exercise");
- the reclassification of 3,054,318 shares of its existing Series B common stock and 26,722,208 shares of Series A common stock into shares of Class A common stock and the reclassification of 70,108,628 shares of restricted Series A common stock into shares of restricted Class A common stock (of which 8,734,893 have vested in connection with the IPO and 4,138,866 shares were repurchased by the Company);

- the exchange of 39,463,787 shares of Class A common stock (after giving effect to the Preferred Conversion and the Reclassification) held by the Co-Founder and Chief Executive Officer and his affiliates for an equivalent number of shares of Class B common stock, which went into effect upon the filing and effectiveness of our amended and restated certificate of incorporation pursuant to the terms of the exchange agreement entered into between the Co-Founder and Chief Executive Officer and his affiliates and us (the "Class B Exchange"); and
- the repurchase of an aggregate of 4,138,866 shares of restricted Class A common stock and 2,307,692 shares of Class B common stock (of which 540,000 shares are restricted Class B common stock) as a result of the Stock Repurchase and the Tax Withholding Repurchase.

**NOTE 2—Basis of Presentation and Significant Accounting Policies**

***(a) Principles of consolidation:***

The accompanying consolidated financial statements of the Company have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP"). The accompanying consolidated financial statements include the accounts of Zeta and its wholly owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

The Company's management considers events or transactions that occur after the balance sheet date but before the financial statements are issued to provide additional evidence relative to certain estimates or to identify matters that require additional disclosure. Subsequent events have been evaluated through the date of issuance of these financial statements. Certain reclassifications have been made to amounts presented in our consolidated statement of cash flows for the years ended December 31, 2021 and 2020 to conform to the presentation for the year ended December 31, 2022.

***(b) Emerging Growth Company Status:***

The Company is an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012 (the JOBS Act). Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until those standards apply to private companies. The Company has elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date that it is (i) no longer an emerging growth company or (ii) affirmatively and irrevocably opts out of the extended transition period provided in the JOBS Act. As a result, these consolidated financial statements may not be comparable to companies that comply with the new or revised accounting pronouncements as of public company effective dates. The JOBS Act does not preclude an emerging growth company from early adopting new or revised accounting standards. The Company expects to use the extended transition period for any new or revised accounting standards during the period which the Company remains an emerging growth company.

***(c) Use of estimates:***

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and reported amounts of revenues and expenses during the reporting period. In these consolidated financial statements, accounts receivable, free standing and embedded financial instruments, acquired assets and liabilities (including goodwill and intangible assets) and their useful lives, website and software development costs, acquisition-related liabilities including contingent purchase price payable and holdback payable, stock-based compensation, impairment of indefinite and long-lived assets, and valuation allowance on income taxes involve reliance on management's estimates. Estimates are based on management judgment and the best available information, as such actual results could differ from those estimates.

***(d) Net loss per share attributable to common stockholders:***

Basic net loss per share attributable to common stockholders is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding during the period, without consideration of potentially dilutive securities. The Company's diluted net loss per common share is the same as basic net loss per common share for all periods presented, since the effect of potentially dilutive securities is anti-dilutive. Refer to Note 20 for further discussion.

***(e) Revenue recognition:***

Revenues arise primarily from the Company's technology platform via subscription fees, volume-based utilization fees and fees for professional services designed to maximize the customers usage of the technology.

Revenues are recognized when control of these services is transferred to the customers, in an amount that reflects the consideration we expect to be entitled to in exchange for those services. Sales and other taxes collected by the Company concurrent with revenue-producing activities are excluded from revenues.

The Company determines revenue recognition through the following steps:

(i) Identification of the contract, or contracts, with a customer.

(ii) Identification of the performance obligations in the contract.

(iii) Determination of the transaction price.

(iv) Allocation of the transaction price to the performance obligations in the contract.

(v) Recognition of revenue when, or as, we satisfy a performance obligation.

At contract inception, the Company assesses the services promised in the contracts with customers and identifies a performance obligation for each promise to transfer to the customer a service (or bundle of services) that is distinct. To identify the performance obligations, the Company considers all the services promised in the contract regardless of whether they are explicitly stated or are implied by customary business practices.

The transaction price is the amount of consideration that the Company is entitled to in exchange for transferring services to a customer. Certain customer contracts give rise to variable consideration, including rebates and allowances that generally decrease the transaction price and therefore reduce revenues. These variable amounts are generally credited to the customer, based on achieving certain levels of activity. Variable consideration is estimated and included in the transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved. Variable consideration is estimated based upon historical experience and known trends.

Further, for the contracts having multiple performance obligations, the total transaction price for a contract is allocated amongst the various performance obligations based on their relative stand-alone selling prices. The relative standalone selling price ("SSP") is determined based on the terms of the contract and requires judgment. Typically, the best estimate of SSP is the contractual price of each obligation. The transaction price for a contract excludes any amounts collected on behalf of third parties, in cases where the Company acts as an agent. Payment terms are typically 30 to 90 days. As such, the Company does not have any significant financing components.

Generally, the Company's contracts contain a series of separately identifiable and distinct services that represent performance obligations that are satisfied over time, revenue for such contracts is recognized using the right to invoice practical expedient because the right to invoice corresponds directly with the value transferred to the customer. The Company also derives revenues from subscription fees for the use of its platforms. The Company recognizes the corresponding revenues over time on a ratable basis over the customer agreement term.

When the Company enters into multiple contracts with a single counterparty, the Company will combine contracts and account for them as a single contract when one or more of the following criteria are met: (i) the contracts are negotiated with a single commercial objective, (ii) consideration to be paid in one contract depends on the terms of the other contract, and (iii) services promised are a single performance obligation. When the Company enters into contracts with third parties in which the Company is acting as both a vendor and a customer, the Company performs an assessment of the goods or services transferred and presents the revenue and expense based on the fair value of the goods or services provided or received.

**Principal vs. Agent**

In substantially all its businesses, the Company incurs third-party costs on behalf of customers, including direct costs and incidental costs. Third-party direct costs incurred in connection with the delivery of advertising or marketing services include, among others: purchased media, data, cost of physical mailers, and procurement cost of Internet Protocol Addresses ("IPs"), used in the emailing services. However, the inclusion of billings related to third-party direct costs in revenues depends on whether the Company acts as a principal or as an agent in the customer arrangement.

In certain businesses the Company may act as a principal when contracting for third-party services on behalf of its customers because it controls the specified goods or services before they are transferred to the customer and the Company is

responsible for providing the specified goods or services, or it is responsible for directing and integrating third-party vendors to fulfil its performance obligation at the agreed upon contractual price. In such arrangements, the Company also takes pricing risk under the terms of the customer contract. In certain media buying businesses, the Company acts as a principal when it controls the buying process for the purchase of the media and contracts directly with the media vendor. In these arrangements, it assumes the pricing risk under the terms of the customer contract. In such cases, the Company includes billable amounts related to third-party costs in the transaction price and record revenues at the gross amount billed, consistent with the manner that revenues are recognized for the underlying services contract.

In certain arrangements the Company may act as an agent of the customers when contracting for third-party services on behalf of its customers because the Company does not control the specified goods or services before they are transferred to the customer. In these contracts with customers, the Company provides access to its software platform available through different pricing options to tailor to multiple customer types and customer needs. These options consist of a percentage of spend, a subscription fee or a fixed cost per impression. In such arrangements, any direct costs incurred on behalf of the customers are netted down from the revenues and revenue is recognized on net basis.

**Contract assets and liabilities**

Contract assets represent revenue recognized for contracts that have not been invoiced to customers. Total contract assets were $2,325 and $2,286 as of December 31, 2022 and 2021, respectively, and are included in the account receivables, net, in the consolidated balance sheets.

Contract liabilities consists of deferred revenues that represents amounts billed to the customers in excess of the revenue recognized. Deferred revenues are subsequently recorded as revenues when earned in accordance with the Company's revenue recognition policies. During the years ended on December 31, 2022 and 2021, the Company billed and collected $10,572 and $56,481 in advance, respectively, and recognized $15,210 and $53,668, respectively, as revenues. As of the years ended on December 31, 2022 and 2021, the deferred revenues are $2,228 and $6,866, respectively.

**Practical expedients and exemptions**

The Company applies the optional exemptions and does not disclose: a) transaction price allocated to unsatisfied performance obligations for which variable consideration is allocated entirely to a wholly unsatisfied performance obligation or to a wholly unsatisfied promise to transfer a distinct good or service that forms part of a single performance obligation in accordance with the series guidance; b) Further, in certain contracts, the Company utilizes the right to invoice practical expedient because the right to invoice corresponds directly with the value transferred to the customer.

**Significant judgments**

The recognition of revenues requires the Company to make judgments, estimates and assumptions that affect the reported amounts of revenues, expenses, contract assets and contract liabilities.

(a) Revenues from certain contracts with customers are subject to variability due to cash incentives and credit notes, therefore, revenues are recognized but subject to the constraint on the variable consideration, i.e. only to the extent that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved.

(b) When revenue arrangements include components of third-party goods and services, for example in transactions which involve resale, fulfillment or providing advertising impressions to the end customer, the Company evaluates whether it is a principal, and reports revenues on a gross basis, or an agent, and reports revenues on a net basis. In this assessment, it is considered if the control of the specified goods or services is obtained before they are transferred to the customer by evaluating indicators such as which party is primarily responsible for fulfilling the promise to provide the goods or services, which party has discretion in establishing price and the underlying terms and conditions between the parties to the transaction.

(c) Contracts with customers may include multiple services. Determining whether those services are distinct from each other, and therefore performance obligations to be accounted for separately, or not distinct from each other, and therefore part of a single performance obligation, may require significant judgment.

(d) Contracts with the Company's vendors that involve both the purchase and sale of services with a single counterparty. Assessing each contract to determine if the revenue and expense should be presented gross or net, may require significant judgement.

(e) Determining the standalone selling price for various performance obligations in the customer contracts requires significant judgement.

**Remaining Performance Obligations**

Remaining performance obligations represents contractual obligations that are not yet fulfilled. Revenues for such contractual obligations will be recognized in future periods. The remaining performance obligations are influenced by several factors, including seasonality, the timing of renewals, average contract terms and foreign currency exchange rates. The remaining performance obligations are subject to future economic risks including counterparty risks, bankruptcies, regulatory changes and other market factors.

As of December 31, 2022, the Company's remaining performance obligations for the next twelve months and thereafter were approximately $57,000 and $65,000, respectively.

**Disaggregation of revenues from contract with customers**

The Company reports disaggregation of revenues based on primary geographical markets and delivery channels / platforms. Revenues by delivery channels / platforms are based on whether the customer requirements necessitate integration with platforms or delivery channels owned by the Company. When the Company generates revenues entirely through the Company platform, the Company considers it Direct Platform Revenue.

When the Company generates revenue by leveraging its platform's integration with third parties, it is considered Integrated Platform Revenue.

The following table summarizes disaggregation for the years ended December 31, 2022 and December 31, 2021:

| | Year ended December 31, | | |
|---|---|---|---|
| | 2022 | 2021 | 2020 |
| Direct Platform Revenue | 77% | 76% | 68% |
| Integrated Platform Revenue | 23% | 24% | 32% |

Refer to the Company's accounting policy on "Segments" below for more information about disaggregation based on primary geographical markets.

***(f) Operating expenses:***

Operating expenses including cost of revenues (excluding depreciation and amortization), general and administrative expenses, selling and marketing expenses and research and development expenses, are recognized as these costs are incurred.

*Depreciation and amortization:*

The Company records depreciation and amortization using a straight-line method over the estimated useful life of the assets.

*Acquisition-related expenses:*

Acquisition-related costs primarily consist of legal fees associated with certain business combinations. It also includes retention bonuses agreed to be paid to employees related to one-time events such as an acquisition or a significant transaction.

*Restructuring expenses:*

Restructuring costs consists primarily of employee termination costs due to internal restructuring. The Company recognizes these costs as they are incurred. There are no incomplete restructuring plans as of December 31, 2022 and 2021.

***(g) Cash, cash equivalents and restricted cash:***

Highly liquid investments with an original maturity of three months or less when purchased are considered to be cash equivalents. The Company maintains cash balances with banks which at times may be in excess of Federal Deposit Insurance Corporation ("FDIC") insurance limits. As of December 31, 2022 and 2021, approximately 0.9% and 0.5% of cash and cash equivalents, respectively, was held in accounts outside the United States and not protected by FDIC insurance.

As of December 31, 2022 and 2021, the Company did not have any amounts in restricted cash.

***(h) Accounts receivable and allowance for doubtful accounts:***

Accounts receivable are carried at original invoice amount less an allowance for doubtful accounts. Allowances for doubtful accounts are established through an evaluation of accounts receivable aging and prior collection experience to estimate the ultimate collectability of receivables. Management considers the following factors when determining the collectability of specific customer accounts: past transaction history with the customers, current economic industry trends, and changes in customer payment terms. If the financial conditions of the Company's customers were to deteriorate, adversely affecting their ability to make payments, additional allowances would be required. Past due balances over 90 days and over a specified amount are reviewed individually for collectability.

Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. The Company does not have any off-balance-sheet credit exposure related to its customers.

The following table reconciles the changes in the allowance for doubtful accounts for the years ended December 31, 2022 and 2021:

| | | |
|---|---|---|
| **Balance as of January 1, 2021** | **$** | **2,207** |
| Bad debt expense | | 43 |
| Write offs | | (955) |
| **Balance as of December 31, 2021** | **$** | **1,295** |
| Bad debt expense | | 650 |
| Write offs | | (63) |
| **Balance as of December 31, 2022** | **$** | **1,882** |

Accounts receivable includes unbilled accounts receivable which represent revenues on contracts to be billed, in subsequent periods, as per the terms of the related contracts. As of December 31, 2022, and 2021, the Company had $2,325 and $2,286 of unbilled accounts receivable, respectively.

***(i) Property and equipment, net:***

Property and equipment are carried at cost less accumulated depreciation. Expenditures for maintenance and repairs are expensed when incurred, while renewals and betterments that materially extend the life of an asset are capitalized. The cost of assets sold, retired, or otherwise disposed of, and the related accumulated depreciation, are eliminated from the accounts, and any resulting gain or loss is recognized.

Depreciation is computed using the straight-line method over the estimated useful lives of assets, which are as follows:

| | **Estimated Useful Life (Years)** |
|---|---|
| Computer equipment | 3-6 |
| Office equipment and furniture | 5-7 |
| Purchased software | 3-5 |
| Leasehold improvements | Shorter of useful life and lease term |

The Company reviews the carrying value of property and equipment for impairment whenever events and circumstances indicate that the carrying value of an asset may not be recoverable. The factors considered by management in performing this assessment include current operating results, trends and prospects, the manner in which the property and equipment are used, and the effects of obsolescence, demand, competition and other economic factors. Based on this assessment, no impairment for assets held and used was recorded for the years ended December 31, 2022 and 2021.

***(j) Website and software development costs, net:***

The Company capitalizes the cost of internally developed software that has a useful life in excess of one year. These costs consist of the salaries, bonuses, stock-based compensation and other employee benefits costs of employees working on such software development. Capitalization begins during the application development stage, following completion of the preliminary project stage. If a project constitutes an enhancement to previously developed software, it is assessed whether the enhancement creates

additional functionality to the software, thus qualifying the work incurred for capitalization. Once the project is available for general release, capitalization ceases, and the Company estimates the useful life of the asset and begins amortization using the straight-line method. The estimated useful life of the Company's website and software development costs is three years. The Company annually assesses whether triggering events are present to review developed software for impairment. Based on this assessment, there was no event during the year ended December 31, 2022 that required the Company to perform such impairment analysis.

***(k) Intangible assets, net:***

Intangible assets are recorded at cost less accumulated amortization. Cost of intangible assets acquired through business combinations represents their fair market value at the date of acquisition. Amortization is calculated using the straight-line method which is consistent with the realization of cash flows over the weighted average useful lives of the intangible assets, which are as follows:

| | Estimated Useful Life (Years) |
|---|---|
| Tradenames | 4-5 |
| Data supply relationships | 2-5 |
| Completed technologies | 3-10 |
| Customer relationships | 3-12 |

The Company purchases and licenses data content from multiple data providers to develop the proprietary databases of information for client use. This data content sometime consists of consumer information like name, address, phone numbers, zip codes, gender, age group, etc. and it may also consist of business information industry, sales volume, physical address, financial information, credit score, etc. License agreement terms vary by vendor. In some instances, the Company retains perpetual rights to this information after the contract ends; in other instances, the information and data are licensed only during the fixed term of the agreement. Additionally, certain data license agreements provide for uneven payment amounts throughout the life of the contract term. The Company capitalizes the intangible assets as the data contents are received from the third parties, as it expects those assets to provide future economic benefit via the generation of Company's revenue and margins. These intangibles assets are amortized on a straight-line basis over the estimated useful life of the data asset. The Company evaluates data content contracts for potential capitalization at the inception of the arrangement as well as each time periodic payments to third parties are made.

The amortization period for the capitalized purchased content is based on the Company's best estimate of the useful life of the asset, which ranges from two to five years. The determination of the useful life includes consideration of a variety of factors including, but not limited to, assessment of the expected use of the asset and contractual provisions that may limit the useful life, as well as an assessment of when the data is expected to become obsolete based on the Company's estimates of the diminishing value of the data over time.

Under certain other data agreements, the underlying data is obtained on a subscription basis with consistent monthly recurring payment terms over the contractual period. Upon the expiration of such arrangements, the Company no longer has the right to access the related data, and therefore, the costs incurred under such contracts are not capitalized and are expensed as payments are made. The Company will immediately lose rights to data under these arrangements if it cancels the subscription and/or cease making payments under the subscription arrangements.

The Company reviews the carrying value of its definite-lived intangible assets for impairment whenever events and circumstances indicate that the carrying value of an asset may not be recoverable from the estimated future cash flows expected to result from its use and eventual disposition. If these future undiscounted cash flows are less than the carrying value of the asset, then the carrying amount of the asset is written down to its fair value, based on the related estimated discounted future cash flows. Factors considered by management in performing this assessment include current operating results, trends and prospects, the manner in which the intangible assets are used, and the effects of obsolescence, demand, competition and other economic factors. For the year ended December 31, 2022 and 2021, no such events and circumstances were noticed that would trigger such assessment and therefore no impairment was recorded.

***(l) Goodwill:***

Goodwill represents the excess of the purchase price in a business combination over the fair value of net assets acquired. Goodwill is not amortized but rather tested for impairment at least annually or more often if and when circumstances indicate that goodwill may not be recoverable. The Company performs an annual goodwill impairment test on October 1 of every year at a reporting unit level based on the financial statements as of September 30. A reporting unit is an operating segment or one level below

an operating segment (referred to as a component) to which goodwill is assigned when initially recorded. As of December 31, 2022, the Company has four reporting units.

The Company assesses qualitative factors to determine whether it is necessary to perform a more detailed quantitative impairment test for goodwill and other indefinite-lived intangible assets. It may also elect to bypass the qualitative assessment and proceed directly to the quantitative test for any reporting units. Qualitative factors that are considered as part of this assessment include a change in the Company's equity valuation and its implied impact on reporting unit fair value, a change in its weighted average cost of capital, industry and market conditions, macroeconomic conditions, trends in product costs and financial performance of the businesses. For the quantitative test, the Company generally uses a discounted cash flow method to estimate fair value.

The discounted cash flow method is based on the present value of projected cash flows. Assumptions used in these cash flow projections are generally consistent with the Company's internal forecasts. The estimated cash flows are discounted using a rate that represents its weighted average cost of capital. The weighted average cost of capital is based on a number of variables, including the equity-risk premium and risk-free interest rate. If the carrying amount of a reporting unit exceeds its fair value, an impairment loss is recognized to the extent the carrying amount of the reporting unit's goodwill exceeds the implied fair value of the goodwill.

For the years ended December 31, 2022 and 2021 annual goodwill impairment test, the Company elected to bypass the qualitative assessment for its four reporting units and proceeded directly to the quantitative impairment test using a discounted cash flow method to estimate the fair value of the reporting units. As a result of this assessment, it was concluded that there was no impairment loss because the fair value of the reporting units significantly exceeded their respective carrying value as of each of the dates. Specifically, for the year ended December 31, 2022, the difference between the fair value and the book value of the reporting units was in the range of $22,600-$504,300.

***(m) Income taxes:***

The Company accounts for income taxes in accordance with ASC 740, Income Taxes, which requires an asset and liability approach for the financial accounting and reporting of income taxes. Under this method, deferred tax assets and liabilities are determined based on temporary differences between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect on deferred tax assets and liabilities of a change in tax laws is recognized in the Consolidated Statements of Operations and Comprehensive Loss in the period that includes the enactment date. A valuation allowance is established when management determines that it is more likely than not that some portion or all of the deferred tax assets will not be realized. Income taxes are more fully discussed in Note 18.

From time to time, the Company engages in transactions in which the tax consequences may be subject to uncertainty. Significant judgment is required in assessing and estimating the tax consequences of these transactions including determining the Company's uncertain tax position. The Company recognizes tax benefits from uncertain tax positions only if it believes that it is more likely than not that the tax position will be sustained on examination by the taxing authorities based on the technical merits of the position. Although the Company believes that it has adequately reserved for its uncertain tax positions, it can provide no assurance that the final tax outcome of these matters will not be materially different.

The Company's policy is to recognize, when applicable, interest and penalties on uncertain tax positions as part of income tax expense.

The Company's policy is to account for income taxes for global intangible low taxed income ("GILTI") as a period cost when incurred.

***(n) Foreign currency translations:***

The Company operates in multiple countries through its legal entities and it performs the functional currency assessment for these entities periodically to determine whether the respective local country currency or United States Dollars ("USD") is their functional currency. Once this determination is made, transactions in foreign currencies are initially recorded into functional currency at the rates of exchange prevailing on the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are remeasured into functional currency at the rates of exchange prevailing at the balance sheet date. Non-monetary assets and liabilities are remeasured to the functional currency at exchange rates that prevailed on the date of inception of the transaction. All foreign exchange gains and losses arising on re-measurement are recorded in the Company's consolidated statement of operations and comprehensive loss.

The assets and liabilities of the subsidiaries for which the functional currency is other than the U.S. dollar are translated into U.S. dollars, the reporting currency, at the rate of exchange prevailing on the balance sheet date. Revenues and expenses are translated into U.S. dollars at the exchange rates prevailing on the last business day of each month, which approximates the average

monthly exchange rate. Share capital and other equity items are translated at exchange rates that prevailed on the date of inception of the transaction. Resulting translation adjustments are included in "Accumulated other comprehensive loss" in the consolidated balance sheets.

***(o) Financial instruments:***

The Company's financial instruments consist of cash and cash equivalents, accounts receivable, accounts payable, accrued expenses, warrants and derivative liabilities, acquisition-related liabilities, which are primarily denominated in U.S. dollars. The carrying amounts of some of these instruments approximate their fair values principally due to the short-term nature of these items. The Company uses a third-party valuation firm to determine the fair value of warrants and derivative liabilities periodically and such valuations are calculated using a variety of methods including market multiples, comparable market transactions and discounted cash flows. Unless otherwise noted, it is management's opinion that the Company is not exposed to significant interest rate, currency or credit risk arising from these financial instruments.

With respect to accounts receivable, the Company is exposed to credit risk arising from the potential for counterparties to default on their contractual obligations to the Company. The Company generally does not require collateral to support accounts receivable. The Company establishes an allowance for doubtful accounts that corresponds with the specific credit risk of its customers, historical trends, and economic circumstances.

Fair value is the price that would be received from the sale of an asset or paid to transfer a liability assuming an orderly transaction in the most advantageous market at the measurement date. U.S. GAAP establishes a hierarchical disclosure framework which prioritizes and ranks the level of observability of inputs used in measuring fair value. These tiers include:

Level 1 is defined as observable inputs such as quoted prices in active markets for identical assets;

Level 2 is defined as observable inputs other than Level 1 prices such as quoted prices for similar assets; 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; and

Level 3 is defined as unobservable inputs in which little or no market data exists, therefore requiring an entity to develop its own assumptions.

See Note 16 for additional information regarding fair value.

***(p) Redeemable convertible preferred stock:***

The redeemable convertible preferred stock as of December 31, 2020 were converted into Class A common stock upon the IPO and as such there were no such redeemable convertible preferred stock as of December 31, 2022 and 2021.

The Company applies the guidance in ASC Topic 480 to determine the classification of financial instruments issued. The Company first determines if the instruments should be classified as liabilities under this guidance based on the redemption features, if mandatorily redeemable or not, and the method of redemption, if in cash, a variable number of shares or a fixed number of shares.

***(q) Warrants and derivative liabilities:***

When warrants or similar instruments are issued, the Company applies the guidance in ASC Topic 815 to determine if the warrants should be classified as equity instruments or as derivative instruments. Generally, warrants that are indexed to the Company's own stock would be classified as equity instruments and are not classified as derivative instruments under this guidance. A key element to consider in determining if a warrant would be considered indexed to the Company's own stock is if the warrants settlement amount is equal to the difference between the fair value of a fixed number of equity shares and a fixed monetary amount. This criterion is sometimes known as the "fixed-for fixed" criteria. In cases where the fixed for fixed criteria are not met, the warrants are classified as derivative instruments.

When the Company enters into transactions, that include certain features that qualify to be embedded derivatives in accordance with ASC Topic 815, applicable GAAP requires the Company to bifurcate such features from their host instruments and account for them as free-standing derivative financial instruments according to certain criteria. The criteria include circumstances in which (a) the economic characteristics and risks of the embedded derivative instrument are not clearly and closely related to the economic characteristics and risks of the host contract, (b) the hybrid instrument that embodies both the embedded derivative instrument and the host contract is not re-measured at fair value under other GAAP with changes in fair value reported in earnings as

they occur and (c) a separate instrument with the same terms as the embedded derivative instrument would be considered a derivative instrument. During the year ended December 31, 2022, the Company entered into certain transactions that included features that qualified to be embedded derivatives. However, as of December 31, 2022, there were no such open transactions and the effect of the changes in the fair value of embedded derivative from the initial recording date through the date of settlement was recorded in the consolidated statements of operations and comprehensive loss.

***(r) Stock-based compensation and other stock-based payments:***

The measurement of stock-based compensation for all stock-based payment awards, including restricted stock, performance stock units ("PSUs"), employee stock purchase plan and stock options granted to the employees, consultants or advisors and non-employee directors, is based on the estimated fair value of the awards on the date of grant or date of modification of such grants. The Company accounts for the modification to already issued awards as per guidance in ASC 718-20-35-3 (Refer to "Note 13. Stock-Based Compensation").

The Company accounts for all stock options and restricted shares granted prior to the IPO using a fair value-based method. The fair value of each stock option granted to employees is estimated on the date of the grant using the Black-Scholes-Merton option pricing model, and the related stock-based compensation is recognized over the expected life of the option. The fair value of the restricted shares granted prior to IPO was determined using the Monte-Carlo simulation method and for the restricted shares granted post-IPO is based on the Company's closing stock price as of the day prior to the date of the grants. The Company accounts for the forfeitures, as they occur. The Company uses the graded vesting attribution method to recognize the stock-based compensation.

The Company has issued PSUs to certain employees during the year ended December 31, 2022 and 2021. The Company also adopted an ESPP plan during the year ended December 31, 2021 (Refer to "Note 13. Stock-Based Compensation"). The fair value of PSU awards was determined using the Monte Carlo simulation method and for the ESPP plan using the Black-Scholes-Merton model, by a third-party valuation firm engaged by the Company. The Company recognizes the stock-based compensation related to these plans on a straight-line basis over the vesting terms associated with these plans.

***(s) Segments:***

The Company operates as one operating segment. Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the Chief Operating Decision Maker ("CODM") in deciding how to allocate resources and in assessing performance. The Company's CODM is the Chief Executive Officer. Since it operates as one operating segment, all required financial segment information can be found in the consolidated financial statements.

Revenues and long-lived assets by geographical region are based on the physical location of the customers being served or the assets are as follows:

Revenues by geographical region consisted of the following:

| | Year ended December 31, | | |
|---|---|---|---|
| | 2022 | 2021 | 2020 |
| US | $ 566,694 | $ 428,941 | $ 340,723 |
| International | 24,267 | 29,397 | 27,397 |
| **Total revenues** | **$ 590,961** | **$ 458,338** | **$ 368,120** |

Total long-lived assets (including right-to-use asset) by geographical region consisted of the following:

| | Year ended December 21, | |
|---|---|---|
| | 2022 | 2021 |
| US | $ 47,858 | $ 43,023 |
| International | 2,224 | 645 |
| **Total long-lived assets** | **$ 50,082** | **$ 43,668** |

***(t) Operating leases:***

On January 1, 2022, the Company adopted ASC 842, Leases, and recognized right to use assets and operating lease liabilities in its consolidated balance sheets. The Company holds an emerging growth company status for FY 2022, therefore it elected

the option to present the impact of adoption within the annual financial statements for the year ended December 31, 2022 and interim statements thereafter.

The Company determines if an arrangement is, or contains, a lease at inception, and whether lease and non-lease components are combined or not. A contract is or contains a lease when, (1) the contract contains an identified asset and (2) the customer obtains substantially all of the economic benefits from the use of that underlying asset and directs how and for what purpose the asset is used during the term of the contract in exchange for consideration.

Right-to-use assets and lease liabilities are initially recorded based on the present value of lease payments over the lease term, which includes the minimum unconditional term of the lease, and may include options to extend or terminate the lease when it is reasonably certain at the commencement date that such options will be exercised. Operating leases with a duration of one year or less are excluded from right-of-use assets and lease liabilities and related expense is recorded as incurred.

As the rate implicit for each of the Company's leases is not readily determinable, the Company uses its incremental borrowing rate at commencement date in determining the present value of lease payments. Right-of-use assets also include any initial direct costs and any lease payments made prior to the lease commencement date and are reduced by any lease incentives received. Lease expense is recognized on a straight-line basis over the term of the lease. Lease expense is a combination of interest on lease liability and amortization of Right-of-use assets. Operating lease expenses are included in general and administrative expenses in the consolidated statements of operations and comprehensive loss. Refer to Note 15 - Leases for additional information.

**New accounting pronouncements**

***Recently adopted:***

In May 2021, the FASB issued ASU No. 2021-04 Earnings Per Share (Topic 260), Debt-Modifications and Extinguishments (Subtopic 470-50), Compensation- Stock Compensation (Topic 718), and Derivatives and Hedging- Contracts in Entity's Own Equity (Subtopic 815-40)- Issuer's Accounting for Certain Modifications or Exchanges of Freestanding Equity-Classified Written Call Options ("ASU 2021-04"). This amendment provides that for an entity that presents earnings per share (EPS) in accordance with Topic 260, the effects of a modification or an exchange of a freestanding equity-classified written call option that is recognized as a dividend should be an adjustment to net income (or net loss) in the basic EPS calculation. These amendments also require that an entity apply the guidance in Subtopic 470-50 to a modification or an exchange of a freestanding equity-classified written call option that is a part of or directly related to a modification or an exchange of an existing debt. An entity should recognize the effect of a modification or an exchange of a freestanding equity classified written call option to compensate for goods or services in accordance with the guidance in Topic 718, Compensation—Stock Compensation. This update was effective for all entities for fiscal years beginning after December 15, 2021, including interim periods within those fiscal years. The Company adopted ASU 2021-04 on January 01, 2022. The adoption of this standard did not have any material impact on the Company's consolidated financial statements..

On January 1, 2022, the Company adopted ASC 842, Leases, under the modified transition approach. This lease accounting standard provides several optional practical expedients in transition. The Company elected the "package of practical expedients," which permits the Company to not reassess its prior conclusions about lease identification, lease classification and initial direct costs. The new standard also provides practical expedients for an entity's ongoing accounting. The Company elected the short-term lease recognition exemption. Accordingly, for those leases that qualify, the Company did not recognize an operating lease asset or operating lease liability for existing short-term leases of those assets in transition. The Company also elected the practical expedient to not separate lease and non-lease components for its leases. The adoption of the lease standard did not have any effect on its previously reported consolidated statements of operations and comprehensive loss and did not result in a cumulative catch-up adjustment to opening equity. The Company recorded $11,025 of right to use assets and lease liabilities and reclassified $2,491 of deferred rent liabilities as a reduction to the beginning operating lease assets upon implementation of ASC 842. See Note 2—Basis of Presentation and Significant Accounting Policies - Leases and Note 15- Leases for additional details.

***Not yet adopted:***

In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments," which was subsequently amended in November 2018 through ASU No. 2018-19, "Codification Improvements to Topic 326, Financial Instruments—Credit Losses." ASU No. 2016-13 will require entities to estimate lifetime expected credit losses for trade and other receivables, net investments in leases, financing receivables, debt securities and other instruments, which will result in earlier recognition of credit losses. Further, the new credit loss model will affect how entities in all industries estimate their allowance for losses for receivables that are current with respect to their payment terms. ASU No. 2018-19 further clarifies that receivables arising from operating leases are not within the scope of Topic 326. Instead, impairment from receivables of operating leases should be accounted for in accordance with Topic 842, Leases. As per the latest ASU 2020-02, FASB

deferred the timelines for certain small public and private entities, thus the new guidance will be adopted by the Company for the annual reporting period beginning January 1, 2023, including interim periods within that annual reporting period. The standard will apply as a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is adopted. The Company does not expect adoption of this new guidance to have a material impact on its results of operations, financial condition, and financial statement disclosures.

In March 2020, the FASB issued ASU No. 2020-04 Reference Rate Reform (Topic 848) Facilitation of the Effects of Reference Rate Reform on Financial Reporting ("ASU 2020-04"). ASU 2020-04 provides optional expedients and exceptions for applying generally accepted accounting principles (GAAP) to contracts, hedging relationships, and other transactions that reference LIBOR or another reference rate expected to be discontinued because of reference rate reform. In January 2021, the FASB issued ASU No. 2021-01 Reference Rate Reform (Topic 848) ("ASU 2021-01)". The amendments in this update clarify that certain optional expedients and exceptions in Topic 848 for contract modifications and hedge accounting apply to derivatives that are affected by the discounting transition. In December 2022, the FASB issued ASU No. 2022-06 Reference Rate Reform (Topic 848) ("ASU 2022-06") to defer the sunset date of Topic 848. The ASU may be applied through December 31, 2024. The Company does not expect adoption of this new guidance to have a material impact on its results of operations, financial condition, and financial statement disclosures.

In October 2021, the FASB released ASU No.2021-08, Business Combinations (Topic 805)- Accounting for Contract Assets and Contract Liabilities from Contracts with Customers. The amendments in this update require that an entity (acquirer) recognize, and measure contract assets and contract liabilities acquired in a business combination in accordance with Topic 606. At the acquisition date, an acquirer should account for the related revenue contracts in accordance with Topic 606 as if it had originated the contracts. For public business entities, the amendments in this update are effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years and require application of the new accounting guidance at the beginning of the earliest comparative period presented in the year of adoption, however early adoption is permitted. The Company does not expect adoption of this new guidance to have a material impact on its results of operations, financial condition, and financial statement disclosures.

**NOTE 3—Property and Equipment, Net**

The details of property and equipment, net and related accumulated depreciation, are set forth below:

| | December 31, 2022 | December 31, 2021 |
|---|---|---|
| Computer equipment and purchased software | $ 21,955 | $ 18,900 |
| Office equipment and furniture | 1,639 | 1,635 |
| Leasehold improvements | 2,306 | 2,196 |
| Property and equipment – gross | **25,900** | **22,731** |
| Less: Accumulated depreciation | (19,919) | (17,101) |
| **Property and equipment, net** | **$ 5,981** | **$ 5,630** |

Depreciation expense for the years ended December 31, 2022 and 2021 was $3,186 and $3,220, respectively.

**NOTE 4—Website and Software Development Costs, Net**

The details of website and software development costs, net and the related accumulated amortization are set forth below:

| | December 31, 2022 | December 31, 2021 |
|---|---|---|
| Website and software development costs | $ 154,015 | $ 130,617 |
| Less: Accumulated amortization | (117,302) | (92,579) |
| **Website and software development costs, net** | **$ 36,713** | $ 38,038 |

Website and software development costs capitalized during the years ended December 31, 2022 and 2021 were $23,398 and $27,911, respectively. Depreciation expense for website and software development costs for the years ended December 31, 2022 and 2021 was $24,723 and $22,764, respectively.

**NOTE 5—Intangible Assets, Net**

The details of intangible assets and related accumulated amortization are set forth below:

| | December 31, 2022 | | | December 31, 2021 | | |
|---|---|---|---|---|---|---|
| | Gross value | Accumulated amortization | Net Value | Gross value | Accumulated amortization | Net Value |
| Data supply relationships | $ 25,314 | $ 8,242 | $ 17,072 | $ 8,750 | $ 1,875 | $ 6,875 |
| Tradenames | 2,720 | 2,650 | 70 | 2,720 | 2,171 | 549 |
| Completed technologies | 28,792 | 22,320 | 6,472 | 23,092 | 17,568 | 5,524 |
| Customer relationships | 71,099 | 50,355 | 20,744 | 65,999 | 37,984 | 28,015 |
| **Total intangible assets** | **$ 127,925** | **$ 83,567** | **$ 44,358** | **$ 100,561** | **$ 59,598** | **$ 40,963** |

Amortization expense of intangibles for the years ended 2022 and 2021 was $23,969 and $19,938, respectively.

Weighted average useful life of the unamortized intangibles as of December 31, 2022 was 3.48 years. Based on the amount of intangible assets subject to amortization, the Company's estimated future amortization over the next five years and beyond are as follows:

| **Year ending December 31,** | |
|---|---|
| 2023 | $ 17,107 |
| 2024 | 12,646 |
| 2025 | 6,645 |
| 2026 | 4,161 |
| 2027 | 2,350 |
| 2028 and thereafter | 1,449 |
| **Total** | **$ 44,358** |

**NOTE 6—Goodwill**

The following is a summary of the carrying amount of goodwill:

| | |
|---|---|
| **Balance as of January 1, 2021** | **$ 76,432** |
| Acquisition of Kinetic | 1,579 |
| Acquisition of Vital | 4,736 |
| Acquisition of Apptness | 31,765 |
| Foreign currency translation | (3) |
| **Balance as of December 31, 2021** | **$ 114,509** |
| Acquisition of ArcaMax | 18,588 |
| Foreign currency translation | (28) |
| **Balance as of December 31, 2022** | **$ 133,069** |

Based on the annual quantitative assessment performed by the Company the fair value of each reporting unit exceeded the respective carrying value by at least 50%, as such there was no impairment loss.

**NOTE 7—Acquisitions**

The Company uses the purchase method of accounting in accordance with ASC 805, Business Combinations. This standard requires that the total cost of an acquisition be allocated to the tangible and intangible assets acquired and liabilities assumed based on the fair value of the tangible and intangible assets acquired and liabilities assumed at the acquisition date. The Company's estimates and assumptions used in assessing fair value are inherently uncertain and subject to refinement. During the measurement period, which may be up to one year from the acquisition date, the Company may record adjustments to the fair value of these tangible and intangible assets acquired and liabilities assumed, with the corresponding offset to goodwill. In addition, uncertain tax positions and tax-related valuation allowances are initially recorded in connection with a business combination as of the acquisition date. Acquisition-related expenses are expensed when incurred.

The Company may also agree to pay a portion of the purchase price for certain acquisitions in the form of contingent consideration, the unpaid amounts of these liabilities are included in the acquisition-related liabilities on the consolidated balance sheets as of December 31, 2022 and 2021.

***(a) ArcaMax Publishing, Inc. (ArcaMax)***

On March 11, 2022, the Company entered into a stock purchase agreement with the seller of ArcaMax Publishing, Inc., ("ArcaMax") to purchase all of its issued and outstanding shares of common stock. The stock purchase agreement was effective March 1, 2022. The fair value of the aggregate purchase consideration for the ArcaMax acquisition was $26,925. The Company paid cash consideration of $9,386 (including a working capital adjustment of $386), issued 926,785 shares of Class A common stock with a fair value of $10,000, and agreed to pay certain earn-outs valued at $6,577 based on the operating performance of the acquired business after the closing date in cash and in shares of the Company, $962 in cash holdback. During the year ended December 31, 2022, the Company finalized the purchase price allocation for its ArcaMax acquisition. Accordingly, the Company has recognized $5,100 as customer relationships intangibles, $5,700 as completed technologies, $18,588 as goodwill, $2,850 as deferred tax liability and $387 as other net assets associated with this acquisition. The Company amortizes the intangible assets over the weighted average life of 5 years.

Prior to the acquisition, ArcaMax was a leader in the development and distribution of more than 400 interest-based newsletters to consumers in the United States, distributing news and syndicating features to a growing opted-in subscriber audience of four million readers. Therefore, the Company paid a premium to acquire ArcaMax assets, which is represented as Goodwill in the above purchase price allocation. The Company incurred $344 as acquisition-related expenses related to this acquisition.

Goodwill acquired by the Company in its ArcaMax acquisition is not deductible for tax purposes.

***(b) Apptness Media Group, LLC ("Apptness"):***

On September 30, 2021, the Company entered into an asset purchase agreement with the sellers of Apptness to acquire its data platform business and hiring certain employees of Apptness who are engaged in the data platform business. This agreement was effective October 1, 2021. Since the assets acquired under the agreement with Apptness meets the definition of a business under ASC 805, Business Combinations, the Company concluded that it represents an acquisition of a business. The Company paid cash consideration of $17,934, issued 3,924,914 Class A common stock with a fair value of $23,000 and agreed to pay certain earn-outs valued at $7,748 based on the operating performance of the acquired business after the closing date and the Company shall pay such earn-out for a period of three years from the acquisition date in cash and in shares of the Company, and $1,396 in cash holdback. During the year ended December 31, 2021, the Company finalized the purchase price allocation for its Apptness acquisition. Accordingly, the Company recognized $13,530 as customer relationships intangibles, $2,740 as developed technology, $60 as database, $31,765 as goodwill and $1,983 as other net tangible assets associated with this acquisition. The Company amortizes the intangible assets over the weighted average life of 6.31 years.

Prior to the acquisition, Apptness operated a digital survey platform that provides comprehensive capabilities to engage consumers on sites across the open web, deliver proprietary insights and audiences to marketers, and providing publishers with new monetization opportunities. Therefore, the Company paid a premium to acquire Apptness assets, which is represented as Goodwill in the above purchase price allocation. The Company incurred $153 as acquisition-related expenses related to this acquisition.

Goodwill acquired by the Company in its Apptness acquisition is deductible for tax purposes.

***(c) Vital Digital, Corp ("Vital"):***

On March 3, 2021, the Company entered into a stock purchase agreement with the sellers of Vital Digital, Corp ("Vital") to purchase all of the issued and outstanding shares of common stock of Vital. The fair value of the purchase consideration for this transaction is determined as $8,950, with $3,400 in cash, 306,748 shares of Series A common stock with a fair value of $2,710, $2,262 in earnouts based on the operating performance of the acquired business after the closing date, and $578 in cash holdback. During the year ended December 31, 2021, the Company finalized the purchase price allocation for its Vital acquisition. Accordingly, the Company has recognized $5,630 as customer relationship intangibles, $4,736 as goodwill, $1,465 as deferred tax liability and $49 as other net assets associated with this acquisition. The Company amortizes the customer relationship over 3 years.

Prior to the acquisition, Vital delivered data-driven marketing solutions that were complementary to the Company's business, and therefore the Company paid a premium to acquire Vital assets, which is represented as Goodwill in the above purchase price allocation.

Goodwill acquired by the Company in its Vital acquisition is not deductible for tax purposes.

***(d) Kinetic Data Solutions, LLC ("Kinetic"):***

On March 1, 2021, the Company entered into a merger agreement with the sellers of Kinetic Data Solutions, LLC ("Kinetic"), an entity controlled by the Chief Executive Officer of the Company, to purchase all of the issued and outstanding stock of Kinetic. The fair value of the purchase consideration was estimated at $2,762

. The Company agreed to issue 306,749 shares of Series A common stock with a fair value of $2,738 and certain earn-outs of $24 based on the operating performance of the acquired business after the closing date. The earn-out was calculated based on the operating performance of the acquired business and the Company shall pay such earn-out for a period of three years from the acquisition date in cash and in restricted shares of the Company. During the year ended December 31, 2021, the Company finalized the purchase price allocation for its Kinetic acquisition. Accordingly, the Company recognized $1,600 as customer relationships intangibles, $1,579 as goodwill and $416 as deferred tax liabilities associated with this acquisition. The Company amortizes the customer relationships over 3 years.

Prior to the acquisition, Kinetic was engaged in the business of marketing solutions focused on homeowners. Kinetic had homeowner data that the Company integrated with its proprietary data to enhance its business and therefore paid a premium to acquire Kinetic assets, which is represented as Goodwill in the above purchase price allocation.

Goodwill acquired by the Company in its Kinetic acquisition is not deductible for tax purposes.

*Pro Forma Information*—The unaudited pro forma consolidated revenues of the Company for the year ended December 31, 2022 and 2021 were approximately $593,000 and $475,000, respectively, as if the business combinations had taken place on January 1, 2021. The unaudited pro forma earnings of these acquired businesses were insignificant to consolidated net loss from January 1, 2022 to December 31, 2022.

**NOTE 8—Acquisition-Related Liabilities**

The following is a summary of acquisition-related liabilities:

| | eBay CRM | Sizmek | IgnitionOne | Kinetic | Vital | Apptness | ArcaMax | Total |
|---|---|---|---|---|---|---|---|---|
| **Balance as of January 1, 2021** | **$ 17,137** | **$ 4,402** | **$ 1,360** | **$ —** | **$ —** | **$ —** | **$ —** | **$ 23,155** |
| **Additions** | **-** | **-** | **-** | **24** | **2,840** | **9,144** | **-** | **12,008** |
| **Settlement during the year** | **-** | **(533 )** | **-** | **-** | **-** | **-** | **-** | **(533 )** |
| Payments made during the year | (9,786 ) | - | - | - | - | - | - | (9,850 ) |
| Change in fair value of earn-out | 649 | (1,942 ) | - | - | - | (338 ) | - | (1,823 ) |
| **Balance as of December 31, 2021** | **$ 8,000** | **$ 1,927** | **$ 1,360** | **$ 24** | **$ 2,840** | **$ 8,806** | **$ —** | **$ 22,957** |
| Additions | — | — | — | — | — | — | 7,539 | **7,539** |
| Payments made during the year | — | (2,168 ) | — | (205 ) | (1,105 ) | (7,333 ) | — | **(10,811 )** |
| Change in fair value of earn-out | — | 241 | — | 1,073 | 565 | 8,828 | 2,283 | 12,990 |
| **Balance as of December 31, 2022** | **$ 8,000** | **$ —** | **$ 1,360** | **$ 892** | **$ 2,300** | **$ 10,301** | **$ 9,822** | **$ 32,675** |

During the year ended December 31, 2022, the businesses acquired by the Company in its Kinetic, Vital, Apptness and ArcaMax acquisitions have performed better than the estimates used for the initial purchase price allocation, as such the Company recorded the changes in the fair value of the earn-outs, which are included in other expenses on the consolidated statements of operations and comprehensive loss.

The Company is a party to a litigation matter in relation to certain acquisition related liabilities for its eBay CRM acquisition dated November 2, 2015. The Company has recorded a liability of $8,000 as of December 31, 2022 which is still being contested by the Company and in view of the numerous legal, technical and factual issues involved in these lawsuits, the Company may resolve the remaining liabilities in any amount higher or lower than the accruals.

On March 10, 2022, the Company entered into a settlement agreement with the sellers of Sizmek to resolve the dispute related to the contingent purchase consideration payable in connection with the Sizmek acquisition made during the year ended December 31, 2019. As such, the Company paid $1,085 in cash and issued 100,000 shares of Class A common stock valued at $1,083, during the year ended December 31, 2022. As a result of this settlement, the Company accrued an additional amount of $241 during the year ended December 31, 2022, which was recorded as a change in fair value of earn-out under other expenses on the consolidated statements of operations and comprehensive loss.

**NOTE 9—Accrued expenses**

The details of accrued expenses are set forth below:

| | December 31, 2022 | December 31, 2021 |
|---|---|---|
| Accrued expenses | **$ 31,267** | $ 26,464 |
| Payroll related liabilities | **40,338** | 36,768 |
| Others | **759** | 747 |
| **Accrued expenses** | **$ 72,364** | $ 63,979 |

**NOTE 10—Concentration of Credit Risk**

No customer accounted for more than 10% of the Company's total revenues during the years ended December 31, 2022 and 2021.

Financial instruments that potentially subject the Company to concentration risk consist primarily of accounts receivable from customers. As of December 31, 2022 and 2021, there was no customer that represented more than 10% of accounts receivables balance as of each of those dates. The Company continuously monitors whether there is an expected credit loss arising from customers, and accordingly make provisions as warranted. As of the year ended December 31, 2022, no provision was warranted or recorded.

**NOTE 11—Credit Facilities**

The Company's long-term borrowings are as follows:

| | December 31, 2022 | December 31, 2021 |
|---|---|---|
| Credit facility | **$ 185,000** | $ 185,000 |
| Less: | | |
| Unamortized deferred financing cost | **(1,047)** | (1,387) |
| **Long-term borrowings** | **$ 183,953** | **$ 183,613** |

On February 3, 2021, the Company entered into a $222,500 Senior Secured Credit Facility ("Senior Secured Credit Facility") with a syndicate of financial institutions and institutional lenders, which consists of (i) a $73,750 initial revolving facility, (ii) a $111,250 term loan facility, and (iii) a $37,500 in incremental revolving facility commitment. Out of the total available credit facility $31,875 remains undrawn as of December 31, 2022. In addition, the Company has an outstanding letter of credit amounting to $1,244 against the available revolving credit facility. The credit facility was fully secured by the financial institution with a first lien on the Company's assets.

Interest on the current outstanding balances is payable quarterly and calculated using a LIBOR rate of no lower than LIBOR+2.125% and no higher than LIBOR+2.625% based on the Company's consolidated net leverage ratio stated in the credit agreement. The effective interest rate on this debt for the year ended on December 31, 2022 was 4.0%. The extensions of credit may be used solely (a) to refinance existing indebtedness, (b) to pay any expenses associated with this line of credit agreement, (c) for acquisitions, and (d) for other general corporate purposes. The Company is required to repay the principal balance and any unpaid accrued interest on the Senior Secured Credit Facility on February 3, 2026. During the year ended December 31, 2022, the Company borrowed $5,625 against the revolver facility and repaid the same amount against the term loan under the credit facility. The initial debt issuance costs of $1,699 incurred in the form of the legal fee, underwriter's fee, etc., are recognized as a reduction in long-term borrowings in the consolidated balance sheets, and are being amortized over the term of the contract on a straight-line basis.

The Senior Secured Credit Facility contains certain financial maintenance covenants including consolidated net leverage ratio and consolidated fixed charge coverage ratio. In addition, this agreement contains restrictive covenants that may limit the Company's ability to, among other things, acquire equity interests of the Company from its stockholders, repurchase / retire any of the Company's securities, and pay dividends or distribute excess cash flow. Additionally, the Company is required to submit periodic financial covenant letters that would include current net leverage ratio and fixed charge coverage ratio, among others. As of December 31, 2022, the applicable total leverage ratio and fixed charge coverage ratio were 2.75 and 1.25, respectively, and the Company was in compliance with these covenants.

The Company determined that the Term Loan is classified as Level 3 and the relevant fair values as of the year ended on December 31, 2022 and 2021 was approximately $189,092 and $182,192, respectively.

On April 23, 2020, the Company received proceeds from a loan in the amount of $10,000, bearing annual interest of 1% and due on April 24, 2022 (the "PPP Loan") pursuant to the Paycheck Protection Program ("PPP") of the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act"). The Company evaluated the applicable accounting guidance relative to the PPP Loan and accounted for the proceeds of the PPP Loan as debt under ASC 470. On June 10, 2021, the Small Business Administration ("SBA") approved the forgiveness of the full amount of the PPP Loan which included principal of $10,000. The Company recognized the reversal of the debt liability upon forgiveness of the PPP Loan as "Gain on extinguishment of debt" in its consolidated statements of operations and comprehensive loss during the year ended December 31, 2021.

As of December 31, 2022, the repayment schedule for the long-term borrowings was as follows:

| **Year ended December 31,** | | |
|---|---|---|
| 2023 | $ | 11,250 |
| 2024 | | 11,250 |
| 2025 | | 16,875 |
| 2026 | | 145,625 |
| **Total*** | **$** | **185,000** |

* Includes $11,250 repayable against the term loan facility within the twelve-month period ending December 31, 2023. The Company intends to draw against the available revolving facility to pay off term loan installments and therefore the total borrowings are included in "Long-term borrowings" on the consolidated balance sheets as of December 31, 2022.

**NOTE 12—Commitments and Contingencies**

*Purchase obligations*

The Company entered into non-cancelable vendor agreements to purchase services. As of December 31, 2022, the Company was party to outstanding purchase contracts as follows:

| **Year ended December 31,** | | |
|---|---|---|
| 2023 | $ | 37,953 |
| 2024 | | 30,544 |
| 2025 | | 7,252 |
| 2026 | | 1,425 |
| 2027 | | — |
| 2028 and thereafter | | — |
| **Total** | **$** | **77,174** |

*Lease commitments*

Refer note 15, Leases for Company's future lease commitments.

*Other contingencies*

The Company is a party to various litigation and administrative proceedings related to claims arising from its operations in the ordinary course of business including in relation to certain contingent purchase price obligations noted above. The Company records provisions for losses when claims become probable, and the amounts are estimable. Although the outcome of these matters cannot be predicted with certainty, the Company's management believes that the resolution of the matters will not have a material effect on the Company's business, results of operations, financial condition, or cash flows.

**NOTE 13—Stock-Based Compensation**

*Stock-based compensation plan*

In 2008, the Company adopted its 2008 Stock Option/Stock Issuance Plan, and, in 2017, adopted the Zeta Global Holdings Corp. 2017 Incentive Plan (collectively, the "Plans").

The Plans permit the issuance of stock options, restricted stock and restricted stock units to employees, directors, and officers, consultants or advisors and non-employee directors of the Company. Options granted under the Plans expire no later than ten years from the grant date. Prior to the IPO, the restricted stock and restricted stock units granted under the Plans generally did not vest until a change in control. Upon a change in control, restricted stock and restricted stock units vest as to 25% of the shares with the

balance of the shares vesting in equal quarterly installments following the change in control over the remainder of a five-year term from the original date of grant. The restricted stock and restricted stock units fully vest upon a change in control to the extent five years has passed from the original date of grant of the restricted stock or restricted stock units. Since the vesting of these awards was contingent upon the change of control event, which was not considered probable until it occurs, the Company did not record any stock-based compensation for such awards prior to the IPO, a change in control event. The stock-based compensation has been recognized following the vesting of restricted stock, restricted stock units and options as described below.

In connection with our IPO, the Company adopted the Zeta Global Holdings Corp. 2021 Incentive Award Plan (the "2021 Plan"), which was effective as of the day prior to the first public trading date of our Class A common stock. All restricted stock, restricted stock units and options granted since the IPO have been granted under the 2021 Plan. Under the 2021 Plan, with certain exceptions as permitted by the plan, 25% of the shares shall vest upon the first anniversary of the grant date and balance shall vest in equal quarterly installments over the remainder of a four year term.

In the past, the Company has cancelled certain restricted stock and in connection with such cancelation has issued restricted stock units to the holders of that restricted stock, with the same vesting conditions as restricted stock.

During the year ended December 31, 2022 and 2021, the Company recognized stock-based compensation expense of $298,992 and 259,159, respectively.

***Restricted Stock and Restricted Stock Units***

As noted above, the Company's restricted stock and restricted stock units granted prior to the IPO did not vest until a change of control. On March 24, 2021, the Company's board of directors approved a modification in the vesting terms of its restricted stock and restricted stock unit awards. This modification was accounted for under the guidance in ASC 718-20-35-3. Given the vesting of the modified awards contained a performance condition associated with the IPO, the Company had determined that the modification was considered improbable-to-improbable under ASC 718-20-55-118 through 119. The Company recognized compensation expense over the modified vesting terms, based on the fair value as of the date of modification.

During the year ended December 31, 2022, the Company's board of directors approved the modification of the vesting schedule of certain awards granted prior to the IPO. The modification accelerated the vesting of those grants such that certain grants that were scheduled to cliff vest in September and December of 2022, did vest from July to December of 2022 in equal monthly instalments. Further, there were other modifications which were approved by the Company's board of directors during the year ended December 31, 2022, which accelerated the vesting of certain other grants. These modifications were accounted for in accordance with ASC 718-20-35-3 and did not have any material impact on the stock-based compensation during the year ended December 31, 2022.

Following is the activity of restricted stock and restricted stock units granted by the Company:

| | Shares | Weighted-Average Grant date fair value |
|---|---|---|
| **Non-vested as of January 1, 2021** | **85,903,970** | **$ 2.80** |
| Granted | 10,672,347 | 8.38 |
| Vested | (9,325,943) | 11.03 |
| Forfeited | (5,386,307) | 9.52 |
| Canceled | (16,655,197) | 3.60 |
| Modified | (68,986,297) | 2.78 |
| Modified and reissued | 68,986,297 | 11.36 |
| **Non-vested as of December 31, 2021** | **65,208,870** | **$ 10.86** |
| Granted [(1)] | 9,267,655 | 9.45 |
| Vested | (12,964,063) | 10.55 |
| Forfeited [(2)] | (1,405,187) | 10.41 |
| **Non-vested as of December 31, 2022 [(3)]** | **60,107,275** | **$ 10.72** |

(1) During the year ended December 31, 2022, the Company granted 9,054,271 restricted stock and 213,384 restricted stock units to its employees, advisors and non-employee directors.

(2) During the year ended December 31, 2022, 1,328,744 restricted stock and 76,443 restricted stock units were forfeited.

(3) Includes 42,357,023 unvested Class A restricted stock, 16,587,085 unvested Class B restricted stock and 1,163,167 unvested restricted stock units as of December 31, 2022.

***Stock options***

Following is the summary of transactions under the Company's stock option plan:

| | Number of options | Weighted average exercise price | Weighted average remaining contractual life (years) | Aggregate intrinsic value |
|---|---|---|---|---|
| **Outstanding options as of January 1, 2021** | 1,150,893 | $ 3.61 | 5.31 | $ 3.89 |
| Exercised | (31,985) | 3.29 | — | — |
| Forfeited | (231,246) | 3.96 | — | — |
| **Outstanding options as of December 31, 2021** | **887,662** | **$ 3.53** | **4.19** | **$ 5.28** |
| Granted | 575,250 | 10.82 | | |
| Exercised | (315,430) | 0.63 | | |
| Forfeited | (30,990) | 10.83 | | |
| **Outstanding options as of December 31, 2022** | **1,116,492** | **$ 7.90** | **6.67** | **$ 0.59** |

The Company engaged a third-party valuation firm to determine the estimated fair value of the options using the Black-Scholes-Merton method, which was determined as $7.46 for the options issued during the year ended December 31, 2022 using the following assumptions:

| | As of December 31, 2022 |
|---|---|
| Dividend yield | **0.0%** |
| Volatility | **77.0%** |
| Risk free rate of interest | **2.93%** |

***Performance Stock Unit ("PSU") Award***

On February 23, 2022, the Compensation Committee of the Board of Directors approved the grant of 1,979,500 PSUs under the Company's 2021 Incentive Award Plan. Upon achievement of the conditions described below, the PSUs could result in the issuance of up to 7,438,500 shares of Class A common stock. Each PSU represents the right to receive shares of Class A common stock as set forth in the PSU grant agreement or, at the option of the Company, an equivalent amount of cash. Participants have no right to the distribution of any shares or payment of any cash until the time (if ever) the PSUs are earned and have vested. Each PSU provides for the right to receive a dividend equivalent to the value of any ordinary cash dividends paid on substantially all the outstanding shares of Class A common stock if the PSUs are earned and vested. The PSUs may be earned at the end of each fiscal quarter beginning with the three-month period ending on December 31, 2022 and ending with, and including, the three month period ending on December 31, 2026. Such number of shares of Class A common stock shall be earned as a percentage of the PSUs granted, as set forth in the table below, based on the 20-day volume-weighted average closing price per share ("VWAP") for such quarter. The number of PSUs earned for such quarter shall be reduced by the number of PSUs, if any, earned in any prior quarter.

| **20 Day VWAP of Class A common stock** | Below $13.84 | $ 13.84 | $ 16.34 | $ 18.84 | $ 22.34 | $ 25.34 | $ 38.09 |
|---|---|---|---|---|---|---|---|
| **Percentage of target PSUs** | 0% | 25% | 50% | 100% | 150% | 200% | * |

* The percentage of target PSUs earned at $38.09 for each participant ranges between 300% and 500%.

Earned PSUs vest in three equal annual installments, with the first installment vesting on the date the Company determines the number of PSUs that are eligible to vest for such quarter, and the second and third installments vesting on the first and second anniversaries of such determination date, subject to accelerated vesting in connection with certain qualifying terminations of employment or a change in control.

Following is the summary of PSUs under the Company's 2021 Incentive Award Plan:

| | Number of PSUs | Weighted Average Grant Date Fair Value |
|---|---|---|
| **Outstanding as of January 1, 2022** | **1,500,000** | **$ 1.95** |
| Granted | 1,979,500 | 20.29 |
| **Outstanding as of December 31, 2022** | **3,479,500** | **$ 12.38** |

The Company engaged a third-party valuation firm to determine the estimated fair value of the PSUs using the Monte Carlo simulation method using the following assumptions:

| | Year ended December 31, 2022 |
|---|---|
| Dividend yield | **0.0%** |
| Volatility | **44.0%** |
| Risk free interest rate | **1.98%** |

***2021 Employee Stock Purchase Plan ("ESPP")***

During the year ended December 31, 2021, the Company adopted the 2021 Employee Stock Purchase Plan, or the 2021 ESPP. The Company expects that all of its employees will be eligible to participate (the "participants") in the 2021 ESPP. The 2021 ESPP permits participants to purchase the Company's Class A common stock through contributions up to a specified percentage of their eligible compensation. The maximum number of shares that may be purchased by a participant during any offering period is capped at 10,000. In addition, no employee will be permitted to accrue the right to purchase shares under the Section 423 component at a rate in excess of $25 worth of shares during any calendar year during which such a purchase right is outstanding (based on the fair market value per share of our Class A common stock as of the first day of the offering period).

On July 28, 2021, the Compensation Committee of the Board of Directors approved the Company's first offering period under the 2021 ESPP, which commenced on August 1, 2021 and ended November 30, 2021. Following the end of the first offering period, the 2021 ESPP shall have consecutive offering periods of approximately six months in length commencing each year on December 1 and June 1 and ending on each May 31 and November 30, as applicable.

During the year ended December 31, 2022, the Company issued 196,385 shares of Class A common stock related to the ESPP offering that ended on May 31, 2022 and 213,612 shares of Class A common stock related to the ESPP offering that ended on November 30, 2022.

The fair value of the offering that commenced on December 1, 2022 was estimated at $3.69 per share, and expected to result in an issuance of approximately 219,341 shares of Class A common stock under this offering that will end on May 31, 2023.

| | Year ended December 31, 2022 |
|---|---|
| Dividend yield | **0.0%** |
| Risk free interest rate | **4.65%** |
| Volatility | **96.1%** |

***Unrecognized stock-based compensation***

The Company has $359,346 of unrecognized compensation expense related to its 60,107,275 unvested restricted stock and restricted stock units, 3,479,500 performance stock units, 544,260 unvested options and approximately 219,341 shares of Class A common stock to be issued under the ESPP. This unrecognized stock-based compensation will be recognized over a weighted average period of 1.13 years.

**NOTE 14—Stockholders' Equity**

*Share repurchase plan*

On August 3, 2022, the Company's Board of Directors authorized a stock repurchase and withholding program of up to $50,000 in the aggregate for (i) repurchases of the Company's outstanding Class A common stock through December 31, 2024 (the "2022 SRP") and (ii) the withholding of shares as an alternative to market sales by certain executives to satisfy tax withholding requirements upon vesting of restricted stock awards (the "RSA Withholding Program").

During the year ended December 31, 2022, the Company repurchased 1,209,015 shares for a value of $9,607, including shares repurchased in conjunction with tax withholdings for the executives. As of December 31, 2022, approximately $40,392 worth of shares remained available for purchase under this discretionary plan.

*Conversion of Common Class B to Class A*

During the year ended December 31, 2022, 5,756,793 shares of Class B common stock were converted into shares of Class A common stock upon transfer pursuant to the terms of our amended and restated certificate of incorporation.

*Issuance of Class A common stock*

During the year ended December 31, 2022, the Company issued 926,785 shares of Class A common stock valued at $10,000 for the ArcaMax acquisition, 554,716 shares of Class of common stock valued at $3,667 for the earnout payments related to its Apptness acquisition and 12,931 shares of Class A common stock valued at $103 for the earnout payments related to its Kinetic acquisition.

During the year ended December 31, 2022, the Company also issued 571,401 shares of Class A common stock valued at $5,235 pursuant to certain agreements. Out of these, certain shares had a stock price downward protection right accordingly, this right was accounted as a derivative liability, which was settled for $410 and accordingly included in the change in fair value of warrants and derivative liabilities in the consolidated statements of operations and comprehensive loss.

**NOTE 15—Leases**

The Company maintains leased offices in the United States of America, United Kingdom, India, Belgium and France.

The following table presents operating lease commitments as reflected under ASC 840 as of December 31, 2021. Deferred rent for these leases as of December 31, 2021 was $2,508 and was included in other current liabilities and noncurrent liabilities on the consolidated balance sheets.

| **Year ended December 31,** | | |
|---|---|---|
| 2022 | $ | 3,023 |
| 2023 | | 2,231 |
| 2024 | | 2,015 |
| 2025 | | 1,787 |
| 2026 | | 1,599 |
| 2027 and thereafter | | 3,463 |
| **Total** | **$** | **14,118** |

Post Adoption of ASC 842, as discussed in Note 2 above, right-to-use asset and lease liabilities balances as of January 1, 2022 are as follows:

| **Operating Leases** | | **As on January 1, 2022** |
|---|---|---|
| Right-to-use asset, net | $ | 8,534 |
| Current liabilities | $ | 1,611 |
| Non-Current liabilities | $ | 9,415 |

Right-to-use asset and lease liabilities balances as of December 31, 2022 are as follows:

| **Operating Leases** | | **As on December 31, 2022** |
|---|---|---|
| Right-to-use asset, net | $ | 7,388 |
| Current liabilities | $ | 2,137 |
| Non-Current liabilities | $ | 7,877 |

Supplemental information related to operating leases is as follows:

| **Particulars** | | **During the year ended December 31, 2022** |
|---|---|---|
| Long term Operating lease cost | $ | 2,785 |
| Other Short-term lease cost | $ | 487 |
| Cash paid for amounts included in the measurement of lease liabilities | $ | 2,741 |
| Right-to-use assets obtained in exchange for new operating lease liabilities | $ | 1,025 |
| Weighted-average remaining lease term (years) — operating leases | | 3.2 |
| Weighted-average discount rate — operating leases | | 6.5 % |

Minimum lease obligations - Future minimum payments under all operating leases (including leases with a duration of one year or less) as of December 31, 2022 are as follows:

| | | |
|---|---|---|
| 2023 | **$** | **2,723** |
| 2024 | | 2,128 |
| 2025 | | 1,863 |
| 2026 | | 1,676 |
| 2027 and thereafter | | 3,483 |
| Total undiscounted lease commitments | **$** | **11,873** |
| Less: Short term leases and interest component | | (1,859) |
| **Total discounted operating lease liabilities** | **$** | **10,014** |

**NOTE 16—Fair Value Disclosures**

Fair value is the price that would be received from the sale of an asset or paid to transfer a liability assuming an orderly transaction in the most advantageous market at the measurement date. U.S. GAAP establishes a hierarchical disclosure framework which prioritizes and ranks the level of observability of inputs used in measuring fair value. These tiers include Level 1, Level 2 and Level 3 (See Note 2).

Level 1 is defined as observable inputs such as quoted prices in active markets for identical assets;

Level 2 is defined as observable inputs other than Level 1 prices such as quoted prices for similar assets; 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; and

Level 3 is defined as unobservable inputs in which little or no market data exists, therefore requiring an entity to develop its own assumptions.

The following table represents the fair value of the financial instruments measured at fair value on a recurring basis:

| | As of December 31, 2022 | | | |
|---|---|---|---|---|
| | **Level 1** | **Level 2** | **Level 3** | **Total** |
| **Assets** | | | | |
| Cash and cash equivalents* | $ 107,354 | | | $ 107,354 |
| **Total assets measured at fair value** | **$ 107,354** | **$ —** | **$ —** | **$ 107,354** |
| **Liabilities** | | | | |
| Acquisition-related liabilities | | | $ 32,675 | $ 32,675 |
| **Total liabilities measured at fair value** | **$ —** | **$ —** | **$ 32,675** | **$ 32,675** |

| | As of December 31, 2021 | | | |
|---|---|---|---|---|
| | **Level 1** | **Level 2** | **Level 3** | **Total** |
| **Assets** | | | | |
| Cash and cash equivalents* | $ 8,564 | $ — | $ — | $ 8,564 |
| **Total assets measured at fair value** | **$ 8,564** | **$ —** | **$ —** | **$ 8,564** |
| **Liabilities** | | | | |
| Acquisition-related liabilities | $ — | $ — | $ 22,957 | $ 22,957 |
| **Total liabilities measured at fair value** | **$ —** | **$ —** | **$ 22,957** | **$ 22,957** |

* Includes cash invested by the Company in certain money market accounts with a financial institution.

The following table reconciles the changes in the fair value of the liabilities categorized within Level 3 of the fair value hierarchy for the years ended December 31, 2022 and 2021:

| | Warrant liability | Acquisition-related liabilities | Derivative Liability |
|---|---|---|---|
| **Balance as of January 1, 2021** | **$ 19,700** | **$ 23,155** | **$ 38,400** |
| Additions | — | 12,008 | — |
| Payments made during the year | — | (9,850) | — |
| Settlement during the year | — | (533) | — |
| Change in fair value | 4,400 | (1,823) | 600 |
| Extinguishment of the warrants and derivative liabilities | (24,100) | — | (39,000) |
| **Balance as of December 31, 2021** | **$ —** | **$ 22,957** | **$ —** |
| Additions | — | 7,539 | — |
| Payments made during the year | — | (10,811) | (410) |
| Change in fair value | — | 12,990 | 410 |
| **Balance as of December 31, 2022** | **$ —** | **$ 32,675** | **$ —** |

In connection with certain business combinations, the Company may owe additional purchase consideration (contingent consideration included in the acquisition-related liabilities) based on the financial performance of the acquired entities after their acquisition. The fair value of the contingent consideration was determined using an unobservable input such as projected revenues, collections of accounts receivables. Changes in any of the assumptions related to the unobservable inputs identified above may change the fair value of the contingent consideration.

**NOTE 17—Related Party Transactions**

Casting Made Simple Corp. ("CMS") is an entity owned by the Caivis Group (the Company's Chief Executive Officer owns a controlling interest in the Caivis Group) and the Chief Executive Officer's spouse. On December 28, 2018, the Company entered into an agreement with CMS to monetize traffic generated through websites owned by CMS and give a profit share to CMS. The profit shared by the Company with CMS, amounted to $207 and $249 for the year ended December 31, 2022 and December 31, 2021, respectively, was recognized as direct cost of revenues in the consolidated statements of operations and comprehensive loss. As of December 31, 2022 and December 31, 2021, the Company had outstanding payables of $25 and $20, respectively, to CMS and included in the "accounts payable and accrued expenses" in the consolidated balance sheets.

Prior to the acquisition, Kinetic Data Solutions, LLC ("Kinetic") was an entity in which Caivis Group was the majority stockholder. On September 9, 2020, the Company entered into an agreement with Kinetic, wherein the Company appointed Kinetic as a reseller of its email marketing services to Kinetic's customers. The Company recognized revenues of $129 during the three months ended March 31, 2021. There were no outstanding amounts from Kinetic as of December 31, 2022 and December 31, 2021.

**NOTE 18—Income Taxes**

The Inflation Reduction Act ("IRA") and CHIPS and Science Act ("CHIPS Act") were both enacted in August 2022. The IRA introduced new provisions including a 15% corporate alternative minimum tax for certain large corporations that have at least an average of $1 billion adjusted financial statement income over a consecutive three-tax-year period and a 1% excise tax surcharge on stock repurchases. The CHIPS Act provides a variety of incentives associated with investments in domestic semiconductor manufacturing and related activities. Both Acts are applicable for tax years beginning after December 31, 2022 and did not have any impact on the Company's consolidated financial statements for the year ended December 31, 2022.

The components of loss before the (benefit) / provision for income taxes is as follows;

| | Year ended December 31, | | |
|---|---|---|---|
| | 2022 | 2021 | 2020 |
| Domestic operations | $ (281,895) | $ (253,462) | $ (54,885) |
| Foreign operations | 1,165 | 3,301 | 2,579 |
| **Loss before income taxes** | **$ (280,730)** | **$ (250,161)** | **$ (52,306)** |

Current and deferred income taxes / (benefits) on loss from continuing operations are as follows;

| | Year ended December 31, | |
|---|---|---|
| | 2022 | 2021 |
| Current | | |
| Federal | $ (17) | $ — |
| State and local | 69 | 97 |
| Foreign | 1,170 | 1,790 |
| Total current income taxes | $ 1,222 | $ 1,887 |
| Deferred: | | |
| Federal | $ (2,114) | $ (1,422) |
| State and local | (736) | (460) |
| Foreign | 137 | (603) |
| Total deferred income benefits | (2,713) | (2,485) |
| Income tax (benefit) / provision | **$ (1,491)** | **$ (598)** |

Significant components of the Company's net deferred tax assets/(liabilities) are as follows:

| | Year ended December 31, | |
|---|---|---|
| | 2022 | 2021 |
| Deferred tax assets: | | |
| Accounts receivable reserve | $ 403 | $ 273 |
| Accrued payroll | 6,802 | 4,990 |
| Net operating loss carry forward | 32,171 | 44,675 |
| Stock-based compensation | 48,010 | 24,586 |
| Interest limitation carry forward | 3,154 | 6,012 |
| Fixed assets | — | 1,158 |
| Intangible assets | 11,329 | 7,891 |
| Capital losses | 1,187 | 1,170 |
| Research and Development Costs | 19,951 | — |
| Accrued expenses and other | 3,575 | 1,220 |
| | 126,582 | 91,975 |
| Less: Valuation allowance | (112,330) | (86,210) |
| Deferred tax assets | $ 14,252 | $ 5,765 |
| Deferred tax liabilities: | | |
| Fixed assets | (7,135) | (14) |
| Deferred state income tax and other | (6,372) | (4,795) |
| Deferred tax liabilities: | (13,507) | (4,809) |
| **Net deferred tax assets** | **$ 745** | **$ 956** |

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes, as well as operating loss and tax credit carry forwards. The recognition of a valuation allowance for deferred taxes requires management to make estimates and judgments about the Company's future profitability which is inherently uncertain. The Company assesses all available positive and negative evidence to determine if its existing deferred tax assets are realizable on a more-likely-than-not basis. In making such an assessment, the Company considered the reversal of existing taxable temporary differences, projected future taxable income, tax planning strategies and recent financial operating results. The ultimate realization of a deferred tax asset is dependent on the Company's generation of sufficient taxable income within the available net operating loss carryback and/or carryforward periods to utilize the deductible temporary differences. Based on the weight of available evidence including three-year cumulative pre-tax losses, the Company continued to conclude that its U.S. deferred tax assets are not realizable on a more-likely-than-not basis and that a full valuation allowance is required. During the year ended December 31, 2022, the Company's valuation allowance increased by $26,120.

The following table reconciles the changes in the valuation allowance for the years ended December 31, 2022 and 2021:

| | | |
|---|---|---|
| **Balance as of January 1, 2021** | **$** | **(52,089)** |
| Increase due to current year pre-tax loss | | (34,127) |
| Others | | 6 |
| **Balance as of December 31, 2021** | | **(86,210)** |
| Increase due to current year pre-tax loss | | (26,111) |
| Others | | (9) |
| **Balance as of December 31, 2022** | **$** | **(112,330)** |

The difference between the federal statutory rate of 21% and the Company's effective tax rate is summarized as follows:

| | December 31, 2022 | December 31, 2021 |
|---|---|---|
| U.S. federal statutory rate | 21.0% | 21.0% |
| State income taxes | 4.4% | 4.6% |
| Other permanent differences | (0.5)% | 0.7% |
| Global intangible low-taxed income (GILTI) | (1.2)% | (0.7)% |
| Non-deductible stock-based compensation | (2.0)% | (3.2)% |
| Non-deductible officer's compensation | (11.9)% | (8.1)% |
| Change in fair value of warrant and derivative liability | — | (0.4)% |
| Change in valuation allowance | (9.3)% | (13.7)% |
| State change in tax rate | 0.2% | — |
| Other | (0.2)% | — |
| **Effective tax rate** | 0.5% | 0.2% |

For the year ended December 31, 2022 and 2021, the income tax benefit of $1,491 and $598, respectively, relates primarily to (i) the partial release of the Company's U.S. valuation allowance as certain business combinations consummated during 2022 and 2021 created a source of future taxable income, offset by (ii) an income tax provision for foreign taxes.

As of December 31, 2022, the Company had U.S. federal net operating loss carryforwards of approximately $110,918 of which $21,400 are subject to an annual limitation pursuant to IRC Section 382. Approximately, $66,805 of U.S. federal net operating loss carryforwards expire in varying amounts during 2036 to 2037, if not utilized. These net operating losses are available to offset 100% of future taxable income. The remaining $44,113 of U.S. federal net operating loss may be carried forward indefinitely but are only available to offset 80% of future taxable income.

In addition, the Company had state net operating losses of $105,696 which will expire in varying amounts during 2026 through 2042, if not utilized. The Company also had federal capital loss carryforwards of $4,179 as of December 31, 2022. Capital loss carryforwards are only available to offset capital gain income and will expire in 2023 if not utilized.

As of December 31, 2022, the Company had federal deferred interest carryforwards under IRC Section 163(j) of $9,659. This deferred interest may be carried forward indefinitely but is limited to 30% tax adjusted EBIT.

The Company plans to continue to reinvest foreign earnings indefinitely outside the United States. If these future earnings are repatriated to the United States, or if the Company determines that such earnings will be remitted in the foreseeable future, the Company may be required to accrue applicable withholding taxes. However, it does not expect to incur any significant additional taxes related to such amounts.

A reconciliation of the beginning and ending amount of unrecognized tax benefits, excluding interest and penalties, is as follows:

| | | |
|---|---|---|
| **Balance as of January 1, 2021** | **$** | **241** |
| Increase in tax positions for current / prior periods | | (18) |
| **Balance as of December 31, 2021** | | **223** |
| Increase in tax positions for current / prior periods | | (223) |
| **Balance as of December 31, 2022** | **$** | **—** |

As of December 31, 2022 and 2021, there were no amounts accrued for interest and penalties. The Company records both accrued interest and penalties related to income tax matters in the income tax provision in the accompanying consolidated

statements of operations and comprehensive loss. The Company does not expect its unrecognized benefits to materially change over the next 12 months.

The Company, or one of its subsidiaries, files its tax returns in the U.S. and certain state and foreign income tax jurisdictions with varying statutes of limitations. The earliest years' tax returns filed by the Company that are still subject to examination by the tax authorities in the major jurisdictions are as follows.

| Jurisdiction | Tax Year |
|---|---|
| U.S | 2019 |
| Czech Republic | 2019 |
| India | 2020 |

**NOTE 19—401(k) Defined Contribution Plan**

The Company maintains a tax-qualified 401(k) retirement plan that provides eligible U.S. employees with an opportunity to save for retirement on a tax advantaged basis. During the years ended December 31, 2022 and 2021, the Company accrued employees' eligible contributions according to the 401(k)-plan document which totaled to $1,438 and $1,050, respectively. The amount of contributions related to the year ended December 31, 2022 was fully paid during 2023.

**NOTE 20—Net Loss Per Share Attributable to Common Stockholders**

Basic net loss per share is computed using the two-class method, by dividing the net loss by the weighted-average number of shares of common stock of the Company outstanding during the period. Diluted net loss per share is computed by giving effect to all potential shares of common stock of the Company, including redeemable convertible preferred stock, outstanding stock options, warrants, to the extent dilutive, and reduced by the amount of cumulative dividends earned on the preferred shares. However, the unvested restricted stock, restricted stock units and performance stock units as of December 31, 2022 and 2021 of 63,586,775 and 66,708,870, respectively, are not considered as participating securities and are anti-dilutive and as such are excluded from the weighted average number of shares used for calculating basic and diluted net loss per share. Basic and diluted net loss per share was the same for each period presented as the inclusion of all potential shares of common stock of the Company outstanding would have been anti-dilutive.

The following table sets forth the calculation of basic and diluted net loss per share attributable to common stockholders during the periods presented:

| | Year ended December 31, | | |
|---|---|---|---|
| | 2022 | 2021 | 2020 |
| **Numerator:** | | | |
| Net loss | $ (279,239) | $ (249,563) | $ (53,225) |
| Cumulative redeemable convertible preferred stock dividends | — | 7,060 | 19,571 |
| **Numerator for Basic and Dilutive loss per share – loss available to common stockholders** | **$ (279,239)** | **$ (256,623)** | **$ (72,796)** |
| **Denominator:** | | | |
| Class A common stock | 122,455,432 | 61,972,951 | — |
| Class B common stock | 16,529,833 | 10,143,209 | — |
| Series A common stock | — | 11,904,161 | 26,108,723 |
| Series B common stock | — | 1,372,351 | 3,054,318 |
| Warrants | — | 1,539,519 | 3,426,368 |
| **Denominator for Basic and Dilutive loss per share – weighted-average common stock** | **138,985,265** | **86,932,191** | **32,589,409** |
| **Basic loss per share** | **$ (2.01)** | $ (2.95) | $ (2.23) |
| **Dilutive loss per share** | **$ (2.01)** | $ (2.95) | $ (2.23) |

Since the Company was in a net loss position for all periods presented, the inclusion of all potential common equivalent shares outstanding would have been anti-dilutive. Therefore net loss per share attributable to common stockholders was the same on a basic and diluted basis.

Anti-dilutive weighted-average common equivalent shares were as follows:

| | Year ended December 31, | | |
|---|---|---|---|
| | 2022 | 2021 | 2020 |
| Options | 1,096,894 | 940,653 | 1,106,220 |
| Warrants | — | — | 1,973,763 |
| Preferred stock | — | — | 39,223,194 |
| Restricted stock and restricted stock units | 66,224,013 | 70,650,049 | 85,903,970 |
| Performance stock units | 3,186,642 | 558,904 | — |

**NOTE 21—Other expenses / (income)**

The components of other expenses / (income) are detailed as follows:

| | Year ended December 31, | | |
|---|---|---|---|
| | 2022 | 2021 | 2020 |
| Change in the fair value of acquisition-related liabilities | $ 12,990 | $ (1,828) | $ 299 |
| Loss / (gain) on sale of assets | — | 266 | (412) |
| Foreign currency translation loss / (gain) | 993 | 1,283 | (13) |
| **Total other expenses / (income)** | **$ 13,983** | **$ (279)** | **$ (126)** |

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

None.

**Item 9A. Control and Procedures.**

**Evaluation of Disclosure Controls and Procedures**

Our management, with the participation of our Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), evaluated the effectiveness of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act as of December 31, 2022.

Our disclosure controls and procedures are designed to provide reasonable assurance that information we are required to disclose in the reports we file or submit under the Exchange Act is accumulated and communicated to our management, including our CEO and CFO, as appropriate to allow timely decisions regarding required disclosures, and is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms. Based on this evaluation, our CEO and CFO have concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of December 31, 2022.

**Changes in Internal Control over Financial Reporting**

There were no changes in our internal control over financial reporting in connection with the evaluation required by Rules 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the period covered by this Annual Report on Form 10-K that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

**Management's 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 consolidated financial statements for external purposes in accordance with GAAP.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the

framework set forth in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Based on our evaluation under the framework set forth in Internal Control – Integrated Framework (2013), our management concluded that our internal control over financial reporting was effective as of December 31, 2022.

**Inherent Limitations on Effectiveness of Controls**

Management recognizes that a control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud or error, if any, have been detected. These inherent limitations include the realities that judgments in decision making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

**Item 9B. Other Information.**

None.

**Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections.**

None.

## PART III

### Item 10. Directors, Executive Officers and Corporate Governance.

The information required by this item will be set forth in our Proxy Statement and is incorporated herein by reference. The Proxy Statement will be filed with the SEC within 120 days of the fiscal year ended December 31, 2022.

### Item 11. Executive Compensation.

The information required by this item will be set forth in our Proxy Statement and is incorporated herein by reference. The Proxy Statement will be filed with the SEC within 120 days of the fiscal year ended December 31, 2022.

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

The information required by this item will be set forth in our Proxy Statement and is incorporated herein by reference. The Proxy Statement will be filed with the SEC within 120 days of the fiscal year ended December 31, 2022.

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

The information required by this item will be set forth in our Proxy Statement and is incorporated herein by reference. The Proxy Statement will be filed with the SEC within 120 days of the fiscal year ended December 31, 2022.

### Item 14. Principal Accountant Fees and Services.

The information required by this item will be set forth in our Proxy Statement and is incorporated herein by reference. The Proxy Statement will be filed with the SEC within 120 days of the fiscal year ended December 31, 2022.

## PART IV

### Item 15. Exhibits and Financial Statement Schedules.

**(a)(1) Financial Statements**

See Index to Financial Statements in Item 8 of this Annual Report on Form 10-K.

**(a)(2) Financial Statement Schedules**

All financial statement schedules have been omitted as the information is not required under the related instructions or is not applicable or because the information required is already included in the financial statements or the notes to the financial statements.

**(a)(3) Exhibits**

The following documents listed in the Exhibit Index of this Annual Report on Form 10-K are incorporated by reference or are filed with this Annual Report on Form 10-K, in each case as indicated therein.

| | | Incorporated by Reference | | | | | |
|---|---|---|---|---|---|---|---|
| Exhibit Number | Exhibit Description | Form | File No. | Exhibit | Filing Date | Filed Herewith | Furnished Herewith |
| 3.1 | Amended and Restated Certificate of Incorporation of Zeta Global Holdings Corp. | 8-K | 001-40464 | 3.1 | 6/15/2021 | | |
| 3.2 | Amended and Restated Bylaws of Zeta Global Holdings Corp. | 8-K | 001-40464 | 3.2 | 6/15/2021 | | |
| 4.1 | Specimen Stock Certificate evidencing the shares of Class A common stock. | S-1/A | 333-255499 | 4.1 | 5/7/2021 | | |
| 4.2 | Amended and Restated Registration Rights Agreement, dated May 8, 2017, by and among, Zeta Global Holdings Corp. and the Investors party thereto | S-1/A | 333-255499 | 4.2 | 5/7/2021 | | |
| 4.3 | Description of Registrant's Securities | 10-K | 001-40464 | 4.3 | 2/25/2022 | | |
| 10.1 | Form of Indemnification Agreement by and between the Registrant and Each of its Directors and Executive Officers. | S-1/A | 333-255499 | 10.2 | 5/7/2021 | | |
| 10.2# | Zeta Global Holdings Corp. 2008 Stock Option/Stock Issuance Plan | S-1/A | 333-255499 | 10.3 | 5/7/2021 | | |
| 10.3# | Form of restricted stock agreement under 2008 Stock Option/Stock Issuance Plan | S-1/A | 333-255499 | 10.4 | 5/7/2021 | | |
| 10.4# | Form of option agreement under 2008 Stock Option/Stock Issuance Plan | S-1/A | 333-255499 | 10.5 | 5/7/2021 | | |

| Exhibit Number | Exhibit Description | Incorporated by Reference | | | | Filed Herewith | Furnished Herewith |
|---|---|---|---|---|---|---|---|
| | | Form | File No. | Exhibit | Filing Date | | |
| 10.5# | Zeta Global Holdings Corp. 2017 Equity Incentive Plan | S-1/A | 333-255499 | 10.6 | 5/7/2021 | | |
| 10.6# | Form of restricted stock agreement under 2017 Equity Incentive Plan | S-1/A | 333-255499 | 10.7 | 5/7/2021 | | |
| 10.7# | Form of restricted stock unit agreement under 2017 Equity Incentive Plan | S-1/A | 333-255499 | 10.8 | 5/7/2021 | | |
| 10.8# | Form of stock option agreement under 2017 Equity Incentive Plan | S-1/A | 333-255499 | 10.9 | 5/7/2021 | | |
| 10.9# | Zeta Global Holdings Corp. 2021 Incentive Award Plan | S-1/A | 333-255499 | 10.10 | 5/7/2021 | | |
| 10.10# | Form of restricted stock agreement under 2021 Incentive Award Plan. | S-1/A | 333-255499 | 10.11 | 5/7/2021 | | |
| 10.11# | Form of restricted stock unit agreement under 2021 Incentive Award Plan | S-1/A | 333-255499 | 10.12 | 5/7/2021 | | |
| 10.12# | Form of stock option agreement under 2021 Incentive Award Plan | S-1/A | 333-255499 | 10.13 | 5/7/2021 | | |
| 10.13# | Zeta Global Holdings Corp. 2021 Employee Stock Purchase Plan | S-1/A | 333-255499 | 10.14 | 5/7/2021 | | |
| 10.14# | Form of amendment to restricted stock agreement under 2008 Stock Option/Stock Issuance Plan and 2017 Equity Incentive Plan for participants eligible to participate in Buy-Back Program | S-1/A | 333-255499 | 10.15 | 5/7/2021 | | |
| 10.15# | Form of amendment to restricted stock unit agreement under 2017 Equity Incentive Plan for participants eligible to participate in Buy-Back Program | S-1/A | 333-255499 | 10.16 | 5/7/2021 | | |
| 10.16# | Form of Employment Agreement by and between Zeta Global Holdings Corp. and David A. Steinberg | S-1/A | 333-255499 | 10.17 | 5/7/2021 | | |
| 10.17 | Form of Exchange Agreement | S-1/A | 333-255499 | 10.18 | 5/7/2021 | | |
| 10.18# | Form of Employment Agreement by and between Zeta Global Corp. and Steven Gerber | S-1/A | 333-255499 | 10.19 | 5/7/2021 | | |
| 10.19# | Form of Employment Agreement by and between Zeta Global Corp. and Chris Greiner | S-1/A | 333-255499 | 10.20 | 5/7/2021 | | |

| Exhibit Number | Exhibit Description | Incorporated by Reference | | | | Filed Herewith | Furnished Herewith |
|---|---|---|---|---|---|---|---|
| | | Form | File No. | Exhibit | Filing Date | | |
| 10.20# | Letter Agreement, dated June 29, 2021, by and between Zeta Global Holdings Corp. and Jené Elzie | 8-K | 001-40464 | 10.1 | 6/29/2021 | | |
| 10.21# | Form of performance stock unit agreement under 2021 Incentive Award Plan | 10-K | 001-40464 | 10.21 | 2/25/2022 | | |
| 10.22 | Credit Agreement among Zeta Global Corp., Zeta Global Holdings Corp., Certain Subsidiaries, The Lenders Party, Bank of America, and BofA Securities, Inc. | S-1 | 333-255499 | 10.1 | 4/26/2021 | | |
| 21.1 | List of Subsidiaries | | | | | X | |
| 23.1 | Consent of Deloitte & Touche LLP | | | | | X | |
| 31.1 | Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 | | | | | X | |
| 31.2 | Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 | | | | | X | |
| 32.1* | Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 | | | | | | X |
| 32.2* | Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 | | | | | | X |
| 101.INS | XBRL Instance Document | | | | | X | |
| 101.SCH | Inline XBRL Taxonomy Extension Schema Document | | | | | X | |
| 101.CAL | Inline XBRL Taxonomy Extension Calculation Linkbase Document | | | | | X | |
| 101.DEF | Inline XBRL Taxonomy Extension Definition Linkbase Document | | | | | X | |

| Exhibit Number | Exhibit Description | Incorporated by Reference | | | | Filed Herewith | Furnished Herewith |
|---|---|---|---|---|---|---|---|
| | | Form | File No. | Exhibit | Filing Date | | |
| 101.LAB | Inline XBRL Taxonomy Extension Label Linkbase Document | | | | | X | |
| 101.PRE | Inline XBRL Taxonomy Extension Presentation Linkbase Document | | | | | X | |
| 104 | Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101) | | | | | | |

# Indicates a management contract or compensatory plan.

* The certifications attached as Exhibit 32.1 and Exhibit 32.2 that accompany this Annual Report on Form 10-K are deemed furnished and not filed with the SEC and are not to be incorporated by reference into any filing of the Company under the Securities Act or the Exchange Act whether made before or after the date of this Annual Report on Form 10-K, irrespective of any general incorporation language contained in such filing.

**Item 16. Form 10-K Summary.**

None.

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**.**

ZETA GLOBAL HOLDINGS CORP.

Date: February 24, 2023

By: /s/ Christopher Greiner

Christopher Greiner
*Chief Financial Officer*

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 in the capacities and on the dates indicated.

| **Name** | **Title** | **Date** |
|---|---|---|
| /s/ David Steinberg<br>David Steinberg | Chief Executive Officer, Director<br>*(Principal Executive Officer)* | February 24, 2023 |
| /s/ Christopher Greiner<br>Christopher Greiner | Chief Financial Officer<br>(*Principal Financial Officer)* | February 24, 2023 |
| /s/ Satish Ravella<br>Satish Ravella | SVP - Finance<br>*(Principal Accounting Officer)* | February 24, 2023 |
| /s/ Jené Elzie<br>Jené Elzie | Director | February 24, 2023 |
| /s/ William Landman<br>William Landman | Director | February 24, 2023 |
| /s/ Robert Niehaus<br>Robert Niehaus | Director | February 24, 2023 |
| /s/ William Royan<br>William Royan | Director | February 24, 2023 |
| /s/ John Sculley<br>John Sculley | Director | February 24, 2023 |
| /s/ Jeanine Silberblatt<br>Jeanine Silberblatt | Director | February 24, 2023 |

**Exhibit 21.1**

**Subsidiaries**

| | |
|---|---|
| Zeta Global Corp. | DE |
| Disqus Inc. | DE |

**Exhibit 23.1**

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in Registration Statement No. 333-257048 on Form S-8 of our report dated February 24, 2023, relating to the financial statements of Zeta Global Holdings Corp. appearing in this Annual Report on Form 10-K for the year ended December 31, 2022.

/s/ Deloitte & Touche LLP

Baltimore, Maryland
February 24, 2023

**Exhibit 31.1**

**Certification of Chief Executive Officer**
**Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, David A. Steinberg, certify that:

1. I have reviewed this annual report on Form 10-K of Zeta Global Holdings Corp.;

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

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

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

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

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

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

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

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

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

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

Date: February 24, 2023

By: /s/ David A. Steinberg

David A. Steinberg
Chief Executive Officer
(*principal executive officer*)

**Exhibit 31.2**

**Certification of Chief Financial Officer**
**Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Christopher Greiner, certify that:

1. I have reviewed this annual report on Form 10-K of Zeta Global Holdings Corp.;

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

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

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

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

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

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

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

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

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

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

Date: February 24, 2023

By: /s/ Christopher Greiner

Christopher Greiner
Chief Financial Officer
(*principal financial officer*)

**Exhibit 32.1**

**CERTIFICATION PURSUANT TO**
**18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO**
**SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

Pursuant to 18 U.S.C. § 1350, as adopted by Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Zeta Global Holdings Corp. (the "Company") hereby certifies, to such officer's knowledge, that:

(1) the accompanying Annual Report on Form 10-K of the Company for the fiscal year ended December 31, 2022 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

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

Dated: February 24, 2023

By: /s/ David A. Steinberg

David A. Steinberg
Chief Executive Officer
*(Principal Executive Officer*)

The foregoing certification is being furnished solely to accompany the Report pursuant to 18 U.S.C. § 1350, and is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not to be incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

**Exhibit 32.2**

**CERTIFICATION PURSUANT TO**
**18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO**
**SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

Pursuant to 18 U.S.C. § 1350, as adopted by Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Zeta Global Holdings Corp. (the "Company") hereby certifies, to such officer's knowledge, that:

(1) the accompanying Annual Report on Form 10-K of the Company for the fiscal year ended December 31, 2022 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

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

Dated: February 24, 2023

By: /s/ Christopher Greiner

Christopher Greiner
Chief Financial Officer
*(Principal Financial Officer*)

The foregoing certification is being furnished solely to accompany the Report pursuant to 18 U.S.C. § 1350, and is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not to be incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing.