2021 Annual Report

Zeta Global Stockholders –

2021 signaled that digital acceleration would not be limited to a single year and will continue to accelerate in the years to come. As the world experiences this era of global economic, social, and digital transformation, businesses are enduring the effects and must adapt agile, individualized marketing strategies fueled by more actionable data to survive and succeed.

Zeta was founded on the premise that marketers needed smarter software to capture the full potential of digital marketing. Software to unify disparate data sets more seamlessly and more quickly. Software to find signals in the noise of the unprecedented data volumes. Software to determine who to reach, what to message, and how to reach them with greater speed, scale, and precision than ever before. And our vision, brought to life through the Zeta Marketing Platform (ZMP), could not be more relevant today. As enterprises digitally transform their businesses and contend with a slowing economy and the highest inflation since the 1980's, they will need more intention and focus to compete and win in this rapidly changing marketplace. The ZMP has become a critical component for marketers to acquire, grow, and retain customer relationships at a lower cost today as well as future-proof their marketing strategies, as demonstrated by our record-breaking year.

2021 was a year of incredible milestones for Zeta: becoming a publicly traded company on the NYSE, hosting our inaugural Zeta Live conference, and achieving revenue of $458 million, a 30% YoY increase (excluding the 2020 Presidential election cycle).[1] We also drove strong operating leverage, expanding Adjusted EBITDA by 60% to $63 million, or 13.8% of revenue.[2] Our first year as a public company has been a testament to how our proprietary data, patented AI, and omnichannel experience drives stronger ROI for marketers. The ZMP is resonating in the marketplace as we remain focused on executing our plan and exceeding our guidance for each of our major reporting metrics and KPIs.

With industry tailwinds in our favor for 2022, Zeta continues to win new business due to our broad omnichannel innovation and proprietary data of over 235 million permissioned US identities. Moreover, the emerging market of Customer Data Platforms (CDPs) has become crucial to marketers navigating the challenges associated with industry regulations and activating quality customer data. The Zeta CDP+ is now a cornerstone product as it provides the capability to target individuals - not audiences of people - through more relevant omnichannel experiences, and it is translating into our results.

And of course, none of this would be possible without our talented and dedicated Zeta team. As part of our longer-term goals, we are laser focused on being an employer of choice and continue making investments in our people, such as expanding paid holidays, doubling health and wellness benefits, and quadrupling learning and development classes to reward

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[1] 25% YoY increase as reported.

[2] Adjusted EBITDA and Adjusted EBITDA margin are non-GAAP metrics. GAAP net loss was $249.6 million (a 369% increase in net loss versus 2020), which includes $259.2 million of stock-based compensation. GAAP net loss margin was (54.4)%. See "Non-GAAP Financial Measures" on pages 50-51 of our Annual Report on Form 10-K for more information and a reconciliation.

and retain our people. Our commitment to Diversity, Equity, and Inclusion is a strategic imperative and critical to our success.

The combination of the disruption in the digital ecosystem with our industry leading platform and our incredible team is positioning Zeta for long-term market leadership. As a sign of our confidence, we introduced the long-term targets of our *Zeta 2025* plan to the market. The financial goals of this plan are to generate in excess of $1 billion in annual revenue with at least 20% Adjusted EBITDA margins by 2025.[3] We have never been more optimistic about the future.

In conclusion, we would sincerely like to thank our customers, partners, stockholders, and Team Zeta for an incredible start to our journey as a public company. We look forward to celebrating the 15th anniversary of our founding in October 2022 and more successes on behalf of our customers.

On behalf of all of us at Zeta, thank you for your ongoing support of our vision.

Sincerely,

David A. Steinberg
Chief Executive Officer and Co-Founder

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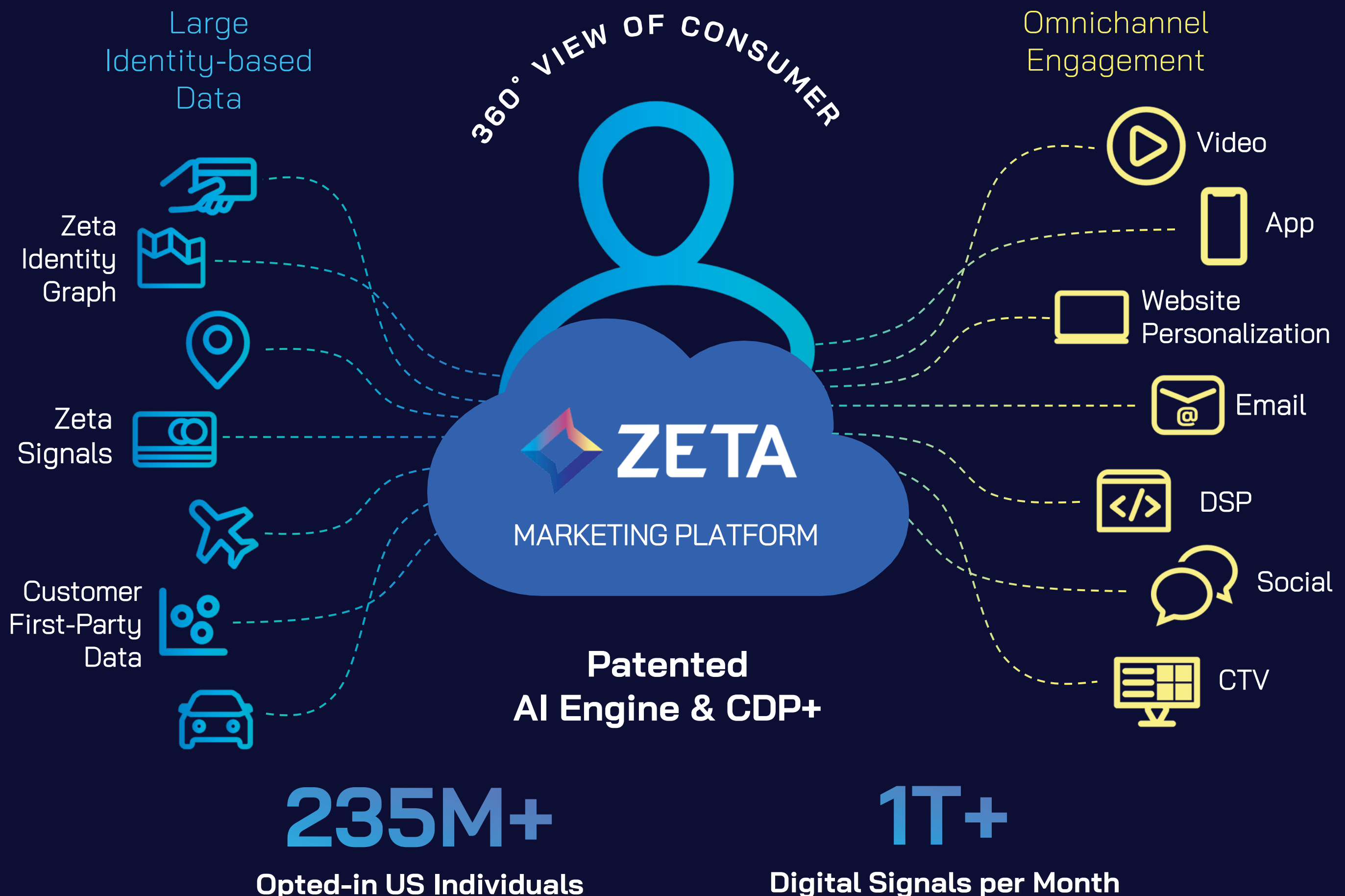
[3] The Company's targets are based on a number of risks and assumptions that are subject to change and many of which are outside the control of the Company. If actual results vary from these assumptions, the Company's expectations may change. There can be no assurance that the Company will achieve these results, including for any of the reasons set out in "Risk Factors" on pages 9-34 or other sections of our Annual Report on Form 10-K. A reconciliation of our forward-looking Adjusted EBITDA margin target to the corresponding GAAP measure cannot be provided because forecasting the timing or amount of items that would be included in the corresponding GAAP measure that have not yet occurred and are out of our control is inherently uncertain and unavailable without unreasonable efforts.

The Zeta Marketing Platform (ZMP) Enables Enterprises to Identify, Reach and Engage Consumers Individually Across All Channels



235M+
Opted-in US Individuals

1T+
Digital Signals per Month

Helping Marketers Acquire, Grow, and Retain Customers

ZETA

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A RECORD 2021

$458M
Revenue
+30% Y/Y ex-Presidential Cycle[1]

$63M
Adjusted EBITDA[2]
13.8% Adjusted EBITDA margin

355
Scaled Customers[4]
+19 Y/Y

$1.2M
Scaled Customer ARPU[4]
+18% Y/Y

76%
Direct Platform Revenue[5]
Vs. 68% in 2020

230bps
Reduction in Cost of Revenue %

LEADING TO ZETA 2025 [6]

$1B+
Revenue

20%+
Adjusted EBITDA Margin[3]

450+
Scaled Customers[4]

80%
Direct Platform Revenue[5]

~$2.1B
Scaled Customer ARPU[4]

35% or better
Cost of Revenue %

1. See FN 1 above. 2021 Revenue growth was 25% as reported.
2. See FN 2 above. GAAP net loss was $249.6M and GAAP net loss margin was (54.4)% in 2021.
3. See FN 3 above.
4. We define scaled customers as customers from which we generate more than $100,000 of revenue on a trailing twelve-month (TTM) basis. We calculate the scaled customer ARPU as revenue for the corresponding period divided by the average number of scaled customers during that period.
5. Direct Platform Revenue: Revenue generated by the ZMP comprised of subscription software and utilization fees generated by channels owned and operated by Zeta, resulting in stronger operating leverage.
6. The Company's targets are based on a number of risks and assumptions, including those set out in "Risk Factors" on pages 9-34 or other sections of our Annual Report on Form 10-K. There can be no assurance that the Company will achieve these targets.

ZETA

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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, 2021

OR

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

Commission File Number: 001-40464

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. ☐

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, 2021, 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 $773.8 million (based upon the closing sale price of the Class A common stock on June 30, 2021 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, 2022 was 161,342,412. The number of shares of registrant's Class B common stock outstanding as of January 31, 2022 was 37,856,095.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement relating to its 2022 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2021 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:

- The impact of the COVID-19 pandemic on the global economy, our customers, employees and business;
- 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;
- 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
- 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) 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 225 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. 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. In addition, we believe that Asia may represent a substantial growth opportunity and we are in the early stages of developing our business plan with respect to these markets.

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 2020, when we were recognized as a "Leader" by The Forrester Wave™: Email Marketing Service Providers, Q2 2020 and received the highest possible scores for our campaign management data, analytics, artificial intelligence and campaign operations capabilities.

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 insurance, consumer & retail, telecommunications and financial services, which contributed 12%, 13%, 12% and 12% of our revenues for the year ended December 31, 2021 and 14%, 11%, 11% and 10% of our revenues for the year ended December 31, 2020, respectively. Over 96% of our revenue for the year ended December 31, 2021 was derived from scaled customers, which we define as customers from which we have generated trailing-12-month revenue of at least $100,000. We had 1,035 and 1,081 total customers and 355 and 336 scaled customers as of December 31, 2021 and 2020, 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 comes 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 come 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 and India. As of December 31, 2021, we had 1,434 employees, including 787 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 our "Zeta Unity" 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 Unity is focused on ensuring equity across all backgrounds at Zeta by creating awareness of different cultures through global panel discussions, volunteering and mentoring opportunities, cultural programming, as well as providing various trainings to all employees. We also actively deploy new processes to increase diversity through talent acquisition and community outreach.

We currently have five Employee Resource Communities (ERCs) with strong engagement and participation: Bridge Builders (Black Community), WING (Women's Community), PRIDE (LGBTQIA+ community), LiT (Latinx Community) and MOSIAC (AAPI Community). Each ERC also welcomes allies as we believe that creating meaningful change can only be achieved by working collectively as a team. We also offer an internal mentorship program to connect leaders with members of the ERCs.

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 100 U.S. and international patents and applications which include 12 granted patents and 23 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 carefully reviewing 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:

- The continued impact of COVID-19 on our and our customers', suppliers' or other partners' business could be detrimental to our business, results of operations, financial condition and the price of our stock.
- 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.
- 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.

Risks Related to Our Business and Our Industry

The ongoing COVID-19 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.

The COVID-19 pandemic has negatively impacted our business and financial performance, and given the recent resurgence of the virus as a result of highly contagious new variants, we are uncertain how it will continue to impact us. During the course of the pandemic, some of our scaled customers were negatively affected, initially resulting in a reduction of total scaled customers. We continue to monitor the situation and take appropriate actions in accordance with recommendations and requirements of relevant authorities. The extent to which the COVID-19 pandemic has impacted, and may continue to 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, the emergence of new variants, the development, availability, distribution and effectiveness of vaccines and treatments, public safety measures and the impact of the pandemic 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.

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. 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. 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 2021, our top ten customers accounted for less than 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, 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 after this offering, 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 shareholders, 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 have been exacerbated by the COVID-19 pandemic and resulting economic impact, and a number of our customers are experiencing financial difficulties and liquidity constraints. 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. Quarantines, shelter-in-place and similar government orders or restrictions 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, 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.

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 shareholders' 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 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, fire and power outages, and to interruption by man-made problems such as terrorism.

Our business is vulnerable to damage or interruption from pandemics, earthquakes, extreme weather events, flooding, 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. These impacts to our business, in addition to the impacts felt by the global economy, have yet to be fully realized. Future actions taken by governmental bodies, regulatory authorities and other third parties as a result of the COVID-19 pandemic 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, United Kingdom data protection laws, and Brazil's 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.

Risks Related to Our Indebtedness, Liquidity and Financial Position

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.

Changes in the method pursuant to which the London Interbank Offered Rate ("LIBOR"), is determined and the transition to other benchmarks may adversely affect our results of operations.

LIBOR and certain other "benchmarks" have been the subject of continuing national, international and other regulatory guidance and proposals for reform. In July 2017, the United Kingdom's Financial Conduct Authority, which regulates LIBOR, publicly announced that it intends to phase out LIBOR, and in 2021, it announced that all LIBOR settings will either cease to be provided by any administrator or no longer be representative immediately after December 31, 2021, in the case of 1 week and 2 month USD settings, and immediately after June 30, 2023, in the case of the remaining USD settings. The U.S. Federal Reserve (the "Federal Reserve") has also advised banks to cease entering into new contracts that use USD LIBOR as a reference rate. To identify a successor rate for U.S. dollar LIBOR, the Alternative Reference Rates Committee ("ARRC"), a U.S. based group convened by the Federal Reserve was formed. The ARRC is comprised of a diverse set of private sector entities and a wide array of official-sector entities, banking regulators, and other financial sector regulators. The ARRC has identified the Secured Overnight Financing Rate ("SOFR"), as its preferred alternative rate for LIBOR. SOFR is a measure of the cost of borrowing cash overnight, collateralized

by U.S. Treasury securities, and is based on directly observable U.S. Treasury-backed repurchase transactions. Working groups formed by financial regulators in the UK, the EU, Japan and Switzerland have also recommended alternatives to LIBOR denominated in their local currencies. Although SOFR appears to be the preferred replacement rate for U.S. dollar LIBOR, it is unclear if other benchmarks may emerge or if other rates will be adopted outside of the United States.

Borrowings under certain of our funding arrangements bear an interest rate based on certain tenors of LIBOR. At this time, it is not possible to predict how markets will respond to SOFR or other alternative reference rates as the transition away from the LIBOR benchmarks is anticipated in coming years. Accordingly, the outcome of these reforms is uncertain and any changes in the methods by which LIBOR is determined or regulatory activity related to LIBOR's phaseout could cause LIBOR to perform differently than in the past or cease to exist. The consequences of these developments cannot be entirely predicted, but could have an uncertain impact on our cost of funds, our receipts or payments under agreements that rely on LIBOR, and the valuation of derivative or other contracts to which we are a party, any of which could impact our results of operations and cash flows. Further, transitioning to an alternative benchmark rate, such as SOFR, may result in us incurring significant expense and legal risks, as renegotiation and changes to documentation may be required in effecting the transition.

Any of these occurrences could materially and adversely affect our borrowing costs, financial condition, and results of operations.

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 earning income in jurisdictions that have higher tax rates. 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, including in connection with this offering and 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 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 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 from customers. 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 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 third parties (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 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. 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 certain personal information. The CCPA provides for civil penalties for violations, as well as a private right of action for data breaches that is expected to increase data breach litigation. Further, the CPRA recently passed in California. The CPRA significantly amends the CCPA and will impose 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 will go into effect on January 1, 2023, and additional compliance investment and potential business process changes may be required. Similar laws have passed in Virginia and Colorado, and have been proposed in other states and at the federal level, reflecting a trend toward more stringent privacy legislation in the U.S. In the event that we are subject to or affected by domestic privacy and data protection laws, 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.

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. 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. 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, the GDPR went into effect in May 2018 and imposes 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 of up to €20 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.

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/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”). 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.

Further, from January 1, 2021, companies have had to comply with the GDPR and also the UK GDPR, which, together with the amended UK Data Protection Act 2018, retains the GDPR in UK national law. The UK GDPR mirrors the fines under the GDPR, i.e., fines up to the greater of €20 million (£17.5 million) or 4% of global turnover. The relationship between the United Kingdom and the European Union in relation to certain aspects of data protection law remains unclear, and it is unclear how United Kingdom data protection laws and regulations will develop in the medium to longer term. 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.

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. 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 and protect their intellectual property.

We rely upon a combination of trade secrets, third-party confidentiality and non-disclosure agreements, additional contractual restrictions, 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. 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.

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 marketing campaigns cannot run certain content. Inadvertently, we may serve such ad content, or the advertisements 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 software is to be used, including prohibiting displaying content that is illegal, and also run 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 customer may run a campaign that does not conform to our standards. If this were to happen, we may be liable to the customer and would likely have to invest in remediating the issue. Further, if this were to happen it would harm our 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 verify whether we are permitted to deliver, or review the content of, such advertisements. If any of these representations are untrue, 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. 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 the release of proprietary source code combined with, linked to or distributed with such open source software to 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, CPRA, 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 would negatively affect our business.

We may face claims relating to the information or content that is made available through our products. 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 enforce 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 rights, 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 AI, 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 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 products. 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

During our 2019 and 2020 audits, we identified material weaknesses in our internal control over financial reporting, which were remediated during the year ended December 31, 2021. However, we may experience additional material weaknesses 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.

Management and our independent registered public accounting firm identified material weaknesses in our internal control over financial reporting that affected our financial statements for the years ended December 31, 2019 and 2020. The material weaknesses that were identified related to lack of segregation of duties, lack of a risk assessment process and lack of contemporaneous documentation and accounting analysis. We took certain measures to remediate the material weaknesses and, as such, those material weaknesses were remediated during the year ended December 31, 2021. See Item 9A. “Controls and Procedures” of Part II in this Annual Report on Form 10-K.

We cannot assure you that additional material weaknesses in our internal control over financial reporting will not be identified in the future. The failure to maintain effective internal control over financial reporting could result in errors in our financial statements that could result in a restatement of financial statements, cause us to fail to meet our periodic reporting obligations and cause investors to lose confidence in our reported financial information, which could lead to a decline in our stock price.

The requirements of being a public company may strain our resources, divert our management’s attention and affect our ability to attract and retain qualified board members.

As a public company, we are subject to the reporting requirements of the Exchange Act, and are required to comply with the applicable requirements of the Sarbanes-Oxley Act and the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of the NYSE and other applicable securities rules and regulations. Compliance with these rules and regulations will increase our legal and financial compliance costs, make some activities more difficult, time-consuming or costly and increase demand on our systems and resources. Among other things, the Exchange Act requires that we file annual, quarterly and current reports with respect to our business and operating results and maintain effective disclosure controls and procedures and internal controls over financial reporting. Significant resources and management oversight are required to maintain and, if required, improve our disclosure controls and procedures and internal controls over financial reporting to meet this standard. As a result, management’s attention may be diverted from other business concerns, which could adversely affect our business and operating results. Although we have already hired additional employees to comply with these requirements, we may need to hire even more employees in the future, which will increase our costs and expenses.

We also expect that being a public company and these new rules and regulations will make it more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These factors could also make it more difficult for us to attract and retain qualified members of our board of directors, particularly to serve on our audit committee and compensation committee and qualified executive officers. Most members of our management team have limited experience managing a publicly traded company, interacting with public company investors and complying with the increasingly complex laws, rules and regulations that govern public companies. As a

public company, we are subject to significant obligations relating to reporting, procedures and internal controls, and our management team may not successfully or efficiently manage such obligations. These obligations and scrutiny require significant attention from our management and could divert their attention away from the day-to-day management of our business, which could adversely affect our business, results of operations and financial condition. We expect that compliance with these requirements will increase our compliance costs. We will need to hire additional accounting, financial and legal staff with appropriate public company experience and technical accounting knowledge and will need to establish an internal audit function. We may not be able to accurately predict or estimate the amount of additional costs we may incur as we continue to develop as a public company or the timing of these costs.

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 and our initial public offering 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.

Substantial future sales of shares of our Class A common stock could cause the market price of our Class A common stock to decline.

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. We are unable to predict the effect that such sales may have on the prevailing market price of our common stock.

Certain holders of our capital stock remain subject to lock-up agreements that restrict their ability to transfer shares of our capital stock for 365 days after the date of the final prospectus relating to our Initial Public Offering ("IPO"). Subject to certain exceptions and certain early release provisions, the lock-up agreements limit the number of shares of capital stock that may be sold immediately following our initial public offering unless Morgan Stanley & Co. LLC permits such stockholders to sell shares prior to the expiration of the lock-up agreements.

Additionally, our directors, executive officer, 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.

Certain holders of our common stock have rights, subject to some 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.

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, 2021, our current founder and chief executive officer and his affiliates held, in aggregate 70.8% 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, 2021, 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 exemption, 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 two floors with approximately 28,000 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, 2022, there were 217 holders of record of our Class A common stock and 9 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

None.

Recent Sales of Unregistered Securities

None.

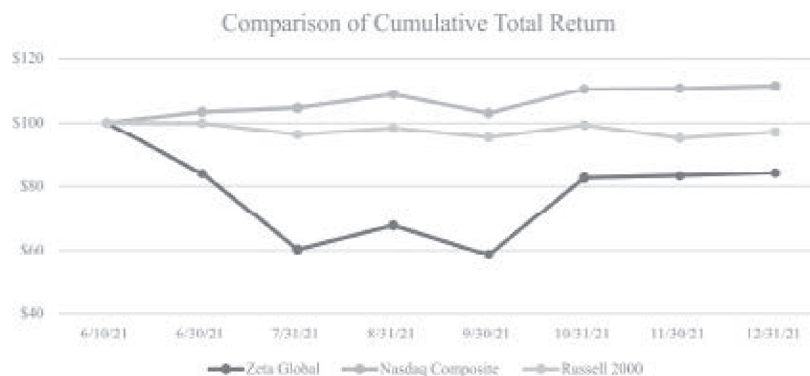
Use of Proceeds

On June 14, 2021, we completed our initial public offering ("IPO") of 14,773,939 shares of Class A common stock at a price to the public of $10.00 per share and a secondary offering of 6,726,061 shares of our Class A common stock at the price to the public of $10.00 per share by certain selling stockholders. The gross proceeds to us from the initial public offering were approximately $132.7 million, after deducting underwriting discounts and commissions and before offering expenses and reimbursements payable by us of $6.2 million. The gross proceeds to the selling stockholders were $67.3 million. The underwriters of the offering were represented by Morgan Stanley & Co. LLC, BofA Securities, Inc., Credit Suisse Securities (USA) LLC, and Barclays Capital Inc. There has been no material change in the planned use of proceeds from our initial public offering as described in our prospectus filed with the SEC on June 14, 2021 pursuant to Rule 424(b)(4) and further described in our Quarterly Reports on Form 10-Q for the period ended June 30, 2021 and September 30, 2021 filed with the SEC on August 8, 2021 and November 10, 2021, respectively.

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, 2021, 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.

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, 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 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. This continuous learning loop provides greater efficiency and effectiveness for our customers and creates a competitive advantage for Zeta.

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 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.

Recent Developments

Initial Public Offering

On June 14, 2021, we completed our initial public offering in which we sold 14,773,939 shares of our Class A common stock, and certain selling stockholders sold an additional 6,726,061 shares of Class A common stock, at a public offering price of $10.00 per share. We received net proceeds of approximately $132.7 million, after deducting underwriters' discounts and commissions (but excluding other offering expenses and reimbursements of $6.2 million), from sales of our shares in the IPO. We did not receive any of the proceeds from any sale of shares by the selling stockholders.

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, 2021 and December 31, 2021, our sales team increased by approximately 40 sales employees, and we expect to continue to invest in our go-to-market efforts in 2022. 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, 2021, 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, 2021 and 2020, our channels per scaled customer were 1.9 and 1.4, 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 NRR rate as an indicator for determining customer loyalty. We calculate our NRR rate by dividing current year revenue earned from customers from which we also earned revenue in the prior year, by the prior year revenue from those same customers. We exclude political and advocacy customers, which represented 1.5% and 4.9% of revenue for 2021 and 2020, respectively, from our calculation of NRR rate because of the biennial nature of these customers. Our annual NRR rate for total customers was 113.3% and 104.4% for the years ended December 31, 2021 and 2020, respectively.

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, 2021.

Tenure for All Scaled Customers for Year Ended December 31, 2021

Customer Tenure	Number of Scaled Customers	% of Scaled Customers	% of Scaled Customer Revenue
3+ Years	144	40.6%	60.6%
1-3 Years	150	42.3%	30.2%
Under 1 Year	61	17.2%	9.2%
Total	355	100.0%	100.0%

Additionally, of our 97 scaled customers who generate over $1.0 million in revenue in the trailing twelve months, 47 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.

COVID Impact

During 2020, a portion of our scaled customers in industries that experienced negative effects from the COVID-19 pandemic, such as travel and hospitality, automotive and financial services, reduced or paused their levels of business with us, which negatively impacted our ARPU. This continued in the first half of 2021, but was primarily off-set by other of our scaled customers in industries that were relatively unaffected or experienced a benefit from COVID-19. We also experienced growth in 2021 due to the government stimulus programs and resulting increase in economic activity levels, which may decrease in the future. Further, it is difficult to predict with certainty whether customer spending patterns will change as a result of rising inflation and changes to interest rates.

In future periods, as the post-pandemic recovery continues and pandemic-related restrictions subside, we expect that our customers in industries such as travel and hospitality and automotive will return to levels of spending comparable to or greater than their historical spending and we expect customer spending in industries where we saw strength during the COVID-19 pandemic to continue to increase. Overall, we continue to believe that the long-term prospects for our business remain strong despite the uncertainty related to new variants of the virus.

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. We calculate the number of scaled customers at the end of each quarter and on an annual basis as the number of customers billed during each applicable period. In 2021, we had 355 scaled customers that represented 96% of total revenue, compared to 336 scaled customers representing 96% of total revenue in 2020.

	Year ended December 31,	
	2021	2020
Scaled customers	355	336

Scaled customers increased 6% for the year ended December 31, 2021, as compared to 2020, primarily due to growth in our customer base in the U.S. Of our scaled customers, 97 and 68 scaled customers generated more than $1.0 million in revenue for the years ended December 31, 2021 and December 31, 2020, 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,	
	2021	2020
Scaled customer ARPU	$ 1,242,145	$ 1,054,194

Scaled customer ARPU increased 18% for the year ended December 31, 2021, as compared to 2020, primarily due to higher usage of our platform among scaled customers. ARPU for our scaled customers from which we generated more than $1.0 million in revenue was $3.6 million (across 97 customers) and $3.8 million (across 68 customers) for the years ended December 31, 2021 and December 31, 2020, 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 API integrations with third parties. For 2021 and 2020, we derived 76% and 68% of our revenues from direct platform revenue, respectively, and 24% and 32% 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 event. 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. We expect costs of revenues will generally 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 executive, 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 will stay consistent 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 increase as a percentage of revenue in 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 when appropriate 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 and addressing disputes related to those transactions. 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.

Interest expense

Interest expense primarily consists of interest payable on our long-term borrowings.

Other (income) / expenses

Other (income) / expenses 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, which 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 and also a derivative liability representing the conversion feature associated with such financing transactions. The change in fair value of warrants and derivative liabilities depends on external valuation-related factors. Our warrants and derivative liabilities were extinguished upon completion of our IPO as a result of conversion of those warrants and other instruments to our common stock.

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 and restricted stock units, 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.

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 for all shares issued prior to March 12, 2021. After giving effect to the modification of the vesting terms of our restricted stock awards and restricted stock units, our stock-based compensation will continue to have a material impact on our results of operations, including operating expenses and net income / (loss) during current and future periods. Pursuant to the modified vesting terms, we did not recognize any stock-based compensation until the IPO. During the year ended December 31, 2021, we recognized $259.2 million of stock-based compensation. As of December 31, 2021, we had $540.4 million of unrecognized compensation related to 65,208,870 unvested restricted stock and restricted stock units, 1,500,000 performance stock units and common stock to be issued under the ESPP.

We will expense the unrecognized stock-based compensation as follows, subject to future forfeitures:

Year ended December 31,					
2022	2023	2024	2025	2026	Total
$264,876	$ 154,306	$ 82,492	$ 34,242	$ 4,515	$ 540,431

See Note 13 to our consolidated financial statements for further details.

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,		
	2021	2020	2019
Revenues	**$ 458,338**	$ 368,120	$ 306,051
Operating expenses:			
Cost of revenues (excluding depreciation and amortization)	**174,720**	148,878	110,385
General and administrative expenses	**189,606**	70,849	73,344
Selling and marketing expenses	**229,343**	77,140	69,519
Research and development expenses	**64,474**	31,772	28,685
Depreciation and amortization	**45,922**	40,064	34,340
Acquisition- related expenses	**1,953**	5,402	5,916
Restructuring expenses	**727**	2,090	1,388
Total operating expenses	**$ 706,745**	$ 376,195	$ 323,577
Loss from operations	**(248,407)**	(8,075)	(17,526)
Interest expense	**7,033**	16,257	15,491
Other (income) / expenses	**(279)**	(126)	239
Gain on extinguishment of debt	**(10,000)**	—	—
Change in fair value of warrants and derivative liabilities	**5,000**	28,100	4,200
Total other expenses	**$ 1,754**	$ 44,231	$ 19,930
Loss before income taxes	**(250,161)**	(52,306)	(37,456)
Income tax (benefit) / provision	**(598)**	$ 919	1,009
Net loss	**$ (249,563)**	**$ (53,225)**	**$ (38,465)**

Comparison of the Years Ended December 31, 2021 and 2020

Revenues

	Year Ended December 31,		Change	
	2021	2020	Amount	%
Revenues	$ 458,338	$ 368,120	$90,218	24.5%

Revenues increased by $90.2 million, or 24.5%, for the year ended December 31, 2021 as compared to the year ended December 31, 2020. The increase in revenues is attributable to incremental revenues of $39.0 million from existing customers and $40.2 million from new customers and approximately $11.0 million from the acquisitions made during the year ended December 31, 2021.

Cost of revenues (excluding depreciation and amortization)

	Year Ended December 31,		Change	
	2021	2020	Amount	%
Cost of revenues (excluding depreciation and amortization)	$ 174,720	$ 148,878	$25,842	17.4%

Cost of revenues (excluding depreciation and amortization) increased by $25.8 million, or 17.4%, for the year ended December 31, 2021 as compared to the year ended December 31, 2020. This increase was primarily driven by $19.2 million in incremental media costs, other direct fulfillment costs of $3.5 million, stock-based compensation of $2.6 million and higher employee-related costs of $0.5 million.

General and administrative expenses

	Year Ended December 31,		Change	
	2021	2020	Amount	%
General and administrative expenses	$ 189,606	$ 70,849	$118,757	167.6%

General and administrative expenses increased by $118.8 million, or 167.6%, for the year ended December 31, 2021 as compared to the year ended December 31, 2020. This increase was driven by stock-based compensation of $100.1 million, higher employee-related costs of $10.4 million, legal and professional expenses of $5.8 million, non-recurring IPO related expenses (including payroll taxes related to vesting of restricted stock and restricted stock units upon completion of our IPO) of $1.2 million and shares issued in settlement of a dispute of $1.2 million.

Selling and marketing expenses

	Year Ended December 31,		Change	
	2021	2020	Amount	%
Selling and marketing expenses	$ 229,343	$ 77,140	$152,203	197.3%

Selling and marketing expenses increased by $152.2 million, or 197.3%, for the year ended December 31, 2021, as compared to the year ended December 31, 2020. This increase was primarily driven by stock-based compensation of $129.2 million, higher employee-related costs of $20.5 million, other marketing-related expenses of $1.1 million, payroll taxes related to vesting of restricted stock and restricted stock units upon completion of our IPO of $0.8 million and higher travel-related expenses of $0.6 million.

Research and development expenses

	Year Ended December 31,		Change	
	2021	2020	Amount	%
Research and development expenses	$ 64,474	$ 31,772	$32,702	102.9%

Research and development expenses increased by $32.7 million, or 102.9%, for the year ended December 31, 2021 as compared to the year ended December 31, 2020. This increase was primarily driven by stock-based compensation of $26.8 million, higher employee-related costs of $4.6 million, professional and consulting fees of $0.9 million and payroll taxes related to vesting of restricted stock and restricted stock units upon completion of our IPO of $0.4 million.

Depreciation and amortization

	Year Ended December 31,		Change	
	2021	2020	Amount	%
Depreciation and amortization	$ 45,922	$ 40,064	$ 5,858	14.6%

Depreciation and amortization expense increased by $5.9 million, or 14.6%, for the year ended December 31, 2021 as compared to the year ended December 31, 2020. This increase was driven by an increase in amortization of intangible assets of $4.4 million primarily due to acquisitions closed during the year ended December 31, 2021. Further, there was an increase in depreciation expense of $1.5 million primarily due to website and software development-related capitalization over the last few years.

Acquisition-related expenses

	Year Ended December 31,		Change	
	2021	2020	Amount	%
Acquisition-related expenses	$ 1,953	$ 5,402	$(3,449)	(63.8)%

Acquisition-related expenses decreased by $3.4 million, or 63.8%, for the year ended December 31, 2021 as compared to the year ended December 31, 2020. This decrease was primarily driven by lower retention bonuses and professional fees compared to those incurred during the year ended on December 31, 2020 in conjunction with acquisitions completed in 2019.

Restructuring expenses

	Year Ended December 31,		Change	
	2021	2020	Amount	%
Restructuring expenses	$ 727	$ 2,090	$(1,363)	(65.2)%

Restructuring expenses decreased by $1.4 million, or 65.2%, for the year ended December 31, 2021 as compared to the year ended December 31, 2020. This decrease was primarily driven by lower employee severance cost during the year ending December 31, 2021 compared with December 31, 2020.

Interest expense

	Year Ended December 31,		Change	
	2021	2020	Amount	%
Interest expense	$ 7,033	$ 16,257	$(9,224)	(56.7)%

Interest expense decreased by $9.2 million, or 56.7%, for the year ended December 31, 2021 as compared to the year ended December 31, 2020. This decrease was primarily driven by a lower interest rate on the new debt facility entered into during the year ended December 31, 2021.

Other income

	Year Ended December 31,		Change	
	2021	2020	Amount	%
Other income	$ (279)	$ (126)	$ (153)	121.4%

Other income increased by $0.2 million, or 121.4% for the year ended December 31, 2021 as compared to the year ended December 31, 2020. This increase was primarily driven by a favorable change in the fair value of acquisition-related liabilities by $2.1 million. Partially offset by increase in foreign currency loss of $1.3 million and loss on sale of assets of $0.7 million.

Change in fair value of warrants and derivative liabilities

	Year Ended December 31,		Change	
	2021	2020	Amount	%
Change in fair value of warrants and derivative liabilities	$ 5,000	$ 28,100	$(23,100)	(82.2)%

Change in fair value of warrants and derivative liabilities expense decreased by $23.1 million, or 82.2% for the year ended December 31, 2021 as compared to the year ended December 31, 2020. This decrease was primarily driven by a change in assumption and estimate related to the price of our underlying stock that is used to calculate the fair value of our warrants and derivatives. The warrants and derivative liabilities were extinguished upon completion of our IPO on June 14, 2021 and as such the losses during the year ended December 31, 2021 are much smaller compared to the year ended December 31, 2020.

Income tax (benefit) / provision

	Year Ended December 31,		Change	
	2021	2020	Amount	%
Income tax (benefit) / provision	$ (598)	$ 919	$(1,517)	(165.1)%

Income tax provision decreased by $1.5 million, or 165.1%, for the year ended December 31, 2021 compared to the year ended December 31, 2020. For the year ended December 31, 2021, we recorded an income tax benefit of $598. The 2021 income tax benefit relates primarily to the partial release of our U.S. valuation allowance as certain business combinations consummated during 2021 created a source of future taxable income, partially offset by an income tax provision for foreign taxes. For the year ended December 31, 2020, we recorded an income tax provision of $919 primarily related to foreign income taxes.

The effective tax rates for the years ended December 31, 2021 and 2020 were (0.2)% and 1.7%, respectively. The change in effective tax rate was primarily related to our partial release of our U.S. valuation allowance. During 2021, the net increase in our valuation allowance was $34.1 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.

Comparison of the Years Ended December 31, 2020 and 2019

Revenues

	Year Ended December 31,		Change	
	2020	2019	Amount	%
Revenues	$ 368,120	$ 306,051	$62,069	20.3%

Revenues increased by $62.1 million, or 20.3%, for the year ended December 31, 2020 compared to the year ended December 31, 2019. This increase in revenues is attributable to $31.3 million from existing customers (which includes customers acquired as part of acquisitions completed in 2019) and $30.8 million from new customers. This was also driven by increased revenue of $51.5 million from U.S. customers and $10.6 million from international customers.

Cost of revenues (excluding depreciation and amortization)

	Year Ended December 31,		Change	
	2020	2019	Amount	%
Cost of revenues (excluding depreciation and amortization)	$ 148,878	$ 110,385	$38,493	34.9%

Cost of revenues (excluding depreciation and amortization) increased by $38.5 million, or 34.9%, for the year ended December 31, 2020, compared to the year ended December 31, 2019. This increase was primarily driven by $38.0 million in incremental media costs.

General and administrative expenses

	Year Ended December 31,		Change	
	2020	2019	Amount	%
General and administrative expenses	$ 70,849	$ 73,344	$(2,495)	(3.4)%

General and administrative expenses decreased by $2.5 million, or 3.4%, for the year ended December 31, 2020 compared to the year ended December 31, 2019. This decrease was driven by lower travel-related expenses of $2.4 million, lower employee-related costs of $1.6 million and lower facility-related expenses such as rent, utilities and office supplies of $1.0 million, partially offset by increased software and telecommunication expenses of $2.9 million.

Selling and marketing expenses

	Year Ended December 31,		Change	
	2020	2019	Amount	%
Selling and marketing expenses	$ 77,140	$ 69,519	$7,621	11.0%

Selling and marketing expenses increased by $7.6 million, or 11.0%, for the year ended December 31, 2020 compared to the year ended December 31, 2019. This increase was primarily driven by higher employee payroll costs of $10.7 million, partially offset by lower trade show and travel-related costs of $2.7 million primarily due to reduced travel as a result of the COVID-19 pandemic.

Research and development expenses

	Year Ended December 31,		Change	
	2020	2019	Amount	%
Research and development expenses	$ 31,772	$ 28,685	$3,087	10.8%

Research and development expenses increased by $3.1 million, or 10.8%, for the year ended December 31, 2020 compared to the year ended December 31, 2019. This increase was primarily driven by higher payroll costs and professional service costs of $3.0 million.

Depreciation and amortization

	Year Ended December 31,		Change	
	2020	2019	Amount	%
Depreciation and amortization	$ 40,064	$ 34,340	$5,724	16.7%

Depreciation and amortization increased by $5.7 million, or 16.7%, for the year ended December 31, 2020 compared to the year ended December 31, 2019. This increase was primarily driven by amortization of acquisition-related intangible assets of $3.8 million and an increase in website and software development cost amortization of $2.6 million, partially offset by a $0.4 million decrease in depreciation of property and equipment.

Acquisition-related expenses

	Year Ended December 31,		Change	
	2020	2019	Amount	%
Acquisition-related expenses	$ 5,402	$ 5,916	$ (514)	(8.7)%

Acquisition-related expenses decreased by $0.5 million, or 8.7%, for the year ended December 31, 2020 compared to the year ended December 31, 2019. This decrease was primarily driven by legal expenses related to earnouts payable for acquisitions.

Restructuring expenses

	Year Ended December 31,		Change	
	2020	2019	Amount	%
Restructuring expenses	$ 2,090	$ 1,388	$ 702	50.6%

Restructuring expenses increased by $0.7 million, or 50.6%, for the year ended December 31, 2020 compared to the year ended December 31, 2019. This increase was primarily driven by an increase in employee termination costs.

Interest expense

	Year Ended December 31,		Change	
	2020	2019	Amount	%
Interest expense	$ 16,257	$ 15,491	$ 766	4.9%

Interest expense increased by $0.8 million, or 4.9%, for the year ended December 31, 2020 compared to the year ended December 31, 2019. This increase was primarily driven by an increase in our average long-term borrowings outstanding during the year ended December 31, 2020 compared to the prior year.

Other (income) / expenses

	Year Ended December 31,		Change	
	2020	2019	Amount	%
Other (income) / expenses	$ (126)	$ 239	$ (365)	NM

Other income increased by $0.4 million for the year ended December 31, 2020 compared to the year ended December 31, 2019. This increase was primarily driven by a change in the fair value of acquisition-related liabilities of $1.4 million, a gain on sale of assets of $0.4 million and a foreign currency gain of $0.4 million, partially offset by a loss on extinguishment of acquisition-related liabilities of $1.8 million.

Change in fair value of warrants and derivative liabilities

	Year Ended December 31,		Change	
	2020	2019	Amount	%
Change in fair value of warrants and derivative liabilities	$ 28,100	$ 4,200	$23,900	569.0%

Change in fair value of warrants and derivative liabilities increased by $23.9 million, for the year ended December 31, 2020 compared to the year ended December 31, 2019. The increase was primarily driven by a change in our estimates and assumptions specifically as it relates to the price of our underlying stock used to calculate the fair value of our warrants and derivatives. See the section titled "—Critical Accounting Estimates" for information regarding estimates and assumptions involved in calculating the fair value of our warrants and derivatives.

Income tax provision

	Year Ended December 31,		Change	
	2020	2019	Amount	%
Income tax provision	$ 919	$ 1,009	$ (90)	(8.9)%

Income tax provision decreased by $0.1 million, or 8.9%, for the year ended December 31, 2020 compared to the year ended December 31, 2019. For the years ended December 31, 2020 and 2019, we recorded an income tax provision primarily related to foreign income taxes and state and local taxes. This decrease was primarily driven by a decrease in the corporate tax rates in India that impacted the tax provisions for certain subsidiaries in India. The effective tax rates for the years ended December 31, 2020 and 2019 were (1.7)% and (2.7)%, respectively. The change in effective tax rate was primarily related to changes in permanent differences and a change in the valuation allowance. During 2020, our valuation allowance increased by $7.4 million primarily as a result of current year operating losses for which no tax benefit was received because we maintain a full valuation allowance against our U.S. net deferred tax assets.

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.

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 expense, 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 consist 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 expense 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. We believe that these non-GAAP financial measures are useful to investors in analyzing our financial and operational performance. 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 U.S. 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, the most directly comparable financial measure calculated and presented in accordance with GAAP.

	Year ended December 31,		
	2021	2020	2019
Net loss	**$(249,563)**	**$(53,225)**	**$(38,465)**
Net loss margin	**(54.4)%**	**(14.5)%**	**(12.6)%**
Add back:			
Depreciation and amortization	45,922	40,064	34,340
Restructuring expenses	727	2,090	1,388
Acquisition-related expenses	1,953	5,402	5,916
Stock-based compensation	259,159	105	216
IPO related expenses	2,705	—	—
Gain on extinguishment of debt	(10,000)	—	—
Dispute settlement expense	1,196	—	—
Other (income) / expenses	(279)	(126)	239
Change in fair value of warrants and derivative liabilities	5,000	28,100	4,200
Interest expense	7,033	16,257	15,491
Income tax (benefit) / provision	(598)	919	1,009
Adjusted EBITDA	**$ 63,255**	**$ 39,586**	**$ 24,334**
Adjusted EBITDA margin%	**13.8%**	**10.8%**	**7.9%**

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, 2021, we had cash and cash equivalents of $103.9 million and net working capital, consisting of current assets less current liabilities, of $90.3 million. As of December 31, 2021, we had an accumulated deficit of $491.8 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. 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 the sale 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 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,		
	2021	2020	2019
Net cash provided by / (used for):			
Cash provided by operating activities	$ 44,292	$ 35,539	$ 30,599
Cash used for investing activities	(46,849)	(25,207)	(61,660)
Cash provided by financing activities	55,732	2,783	28,028
Effect of exchange rate changes on cash and cash equivalents	(41)	(208)	(75)
Net increase / (decrease) in cash and cash equivalents, including restricted cash	**$ 53,134**	**$ 12,907**	**$ (3,108)**

Net cash provided by operating activities

For 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.

During the year ended December 31, 2020, net cash provided by operating activities of $35.5 million resulted primarily from adjusted non-cash items of $72.4 million largely offsetting the net loss of $53.2 million. Non-cash items included $40.1 million for depreciation and amortization and a change in fair value of warrants and derivative liabilities of $28.1 million. Changes in working capital were primarily driven by a decrease in accounts receivable of $24.3 million and an increase in accounts payable of $4.4 million partially offset by a decrease in accrued expenses and other current liabilities of $15.5 million.

During the year ended December 31, 2019, net cash provided by operating activities of $30.6 million resulted primarily from adjusted non-cash items of $41.1 million largely offsetting the net loss of $38.5 million. Non-cash items included $34.3 million for depreciation and amortization, unpaid interest of $2.2 million and $4.2 million for change in the fair value of warrants and derivative liabilities. Changes in working capital were primarily driven by a decrease in accounts receivable of $18.9 million and an increase in accounts payable of $22.2 million partially offset by a decrease in accrued expense and other current liabilities of $6.5 million.

Net cash used in investing activities

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.

During the year ended December 31, 2020, we used $25.2 million of cash in investing activities, primarily consisting of investments in website and software development costs of $23.0 million.

During the year ended December 31, 2019, we used $61.7 million of cash in investing activities, primarily consisting of investments in website and software development costs of $19.4 million, and $39.0 million (net of cash acquired) of business and asset acquisitions.

Net cash provided by financing activities

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.

During the year ended December 31, 2020, net cash provided by financing activities of $2.8 million was primarily due to $10.0 million in proceeds from a loan under the Paycheck Protection Program, partially offset by repayments of $6.5 million under our credit facilities.

During the year ended December 31, 2019, net cash provided by financing activities of $28.0 million was primarily due to $24.5 million in proceeds from the issuance of term loans and $7.0 million from drawings under our line of credit.

Debt

As of December 31, 2021, we have $183.6 million of outstanding long-term borrowings.

On February 3, 2021 we completed our debt refinancing and as a result, 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 $185.0 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. As a result of the debt refinancing, we expect that our interest expense will decrease in the future compared to prior years. We do not expect any other significant changes in liquidity as a result of this refinancing.

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.

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

Contractual obligations

As of December 31, 2021, our material contractual obligations were as follows:

	Total	<1 Year	1-3 Years	3-5 Years	> 5 Years
Long-term borrowings	$203,467	$10,394	$31,340	$161,733	$ —
Operating leases	14,118	3,023	4,246	3,386	3,463
Purchase obligations	68,682	19,607	41,950	7,125	—
Total contractual obligations	**$286,267**	**$33,024**	**$77,536**	**$172,244**	**$ 3,463**

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.

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, 2021. 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, 2020	**June 30, 2020**	**September 30, 2020**	**December 31, 2020**	**March 31, 2021**	**June 30, 2021**	**September 30, 2021**	**December 31, 2021**
Revenues	$ 81,260	$ 77,130	$ 95,284	$ 114,446	$ 101,463	$ 106,896	$ 115,133	$ 134,846
Operating expenses:								
Cost of revenues (excluding depreciation and amortization)	30,529	29,296	40,705	48,348	38,972	42,212	44,525	49,011
General and administrative expenses	18,793	17,327	17,150	17,579	19,132	65,907	50,643	53,924
Selling and marketing expenses	19,248	16,842	18,269	22,781	20,570	82,845	60,537	65,391
Research and development expenses	8,723	8,161	6,905	7,983	9,784	26,503	13,998	14,189
Depreciation and amortization	9,541	10,497	10,133	9,893	10,117	11,235	11,783	12,787
Acquisition-related expenses	1,935	1,156	1,230	1,081	707	329	480	437
Restructuring expenses	1,193	498	259	140	287	150	30	260
Total operating expenses	**$ 89,962**	**$ 83,777**	**$ 94,651**	**$ 107,805**	**$ 99,569**	**$ 229,181**	**$ 181,996**	**$ 195,999**
(Loss) / income from operations	(8,702)	(6,647)	633	6,641	1,894	(122,285)	(66,863)	(61,153)
Interest expense	4,343	4,382	3,823	3,709	2,961	1,402	1,342	1,328
Other expenses / (income)	113	(471)	(188)	420	1,284	(749)	496	(1,310)
Gain on extinguishment of debt	—	—	—	—	—	(10,000)	—	—
Change in fair value of warrants and derivative liabilities	2,600	4,100	9,700	11,700	23,600	(18,600)	—	—
Total other expenses / (income)	$ 7,056	$ 8,011	$ 13,335	$ 15,829	$ 27,845	$ (27,947)	$ 1,838	$ 18
Loss before income taxes	(15,758)	(14,658)	(12,702)	(9,188)	(25,951)	(94,338)	(68,701)	(61,171)
Income tax provision / (benefit)	622	396	301	(400)	(1,577)	584	428	(33)
Net loss	**$ (16,380)**	**$ (15,054)**	**$ (13,003)**	**$ (8,788)**	**$ (24,374)**	**$ (94,922)**	**$ (69,129)**	**$ (61,138)**
Other comprehensive (loss) / income:								
Foreign currency translation adjustment	(741)	(47)	272	326	54	(129)	(77)	88
Total comprehensive loss	**$ (17,121)**	**$ (15,101)**	**$ (12,731)**	**$ (8,462)**	**$ (24,320)**	**$ (95,051)**	**$ (69,206)**	**$ (61,050)**
Basic loss per share	**$ (0.61)**	**$ (0.58)**	**$ (0.51)**	**$ (0.53)**	**$ (0.86)**	**$ (1.92)**	**$ (0.53)**	**$ (0.46)**
Diluted loss per share	**$ (0.61)**	**$ (0.58)**	**$ (0.51)**	**$ (0.53)**	**$ (0.86)**	**$ (1.92)**	**$ (0.53)**	**$ (0.46)**
Weighted average number of shares used to compute net loss per share								
Basic	**32,607,406**	**32,362,610**	**32,607,357**	**32,589,397**	**32,846,991**	**51,202,335**	**129,731,980**	**133,697,870**
Diluted	**32,607,406**	**32,362,610**	**32,607,357**	**32,589,397**	**32,846,991**	**51,202,335**	**129,731,980**	**133,697,870**

The Company recorded total stock-based compensation as follows:

	Quarter ended							
	March 31, 2020	**June 30, 2020**	**September 30, 2020**	**December 31, 2020**	**March 31, 2021**	**June 30, 2021**	**September 30, 2021**	**December 31, 2021**
Cost of revenues (excluding depreciation and amortization)	—	—	—	—	—	266	1,183	1,140
General and administrative expenses	26	27	26	26	—	42,625	28,243	29,292
Selling and marketing expenses	—	—	—	—	—	59,512	35,114	34,951
Research and development expenses	—	—	—	—	—	16,867	4,803	5,163
Total	**26**	**27**	**26**	**26**	**—**	**119,270**	**69,343**	**70,546**

Critical Accounting 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.
- 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, 2021, 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, 2021 and 2020, 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 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. Based upon the principal balance owed on our long-term borrowings as of December 31, 2021, 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, 2021. 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

We do not believe that inflation had a material effect on our business, financial condition or results of operations.

Item 8. Financial Statements and Supplementary Data.

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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, 2021 and 2020, 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, 2021, 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, 2021 and 2020 and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021, 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 25, 2022

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, 2021	As of December 31, 2020
Assets		
Current assets:		
Cash and cash equivalents	**$ 103,859**	$ 50,725
Accounts receivable, net of allowance of $1,295 and $2,207 as of December 31, 2021 and December 31, 2020, respectively	**83,578**	79,366
Prepaid expenses	**6,970**	3,903
Other current assets	**1,649**	7,374
Total current assets	**196,056**	141,368
Non-current assets:		
Property and equipment, net	**5,630**	6,117
Website and software development costs, net	**38,038**	32,891
Intangible assets, net	**40,963**	28,591
Goodwill	**114,509**	76,432
Deferred tax assets, net	**956**	366
Other non-current assets	**1,113**	521
Total non-current assets	**201,209**	144,918
Total assets	**$ 397,265**	$ 286,286
Liabilities, Mezzanine Equity and Stockholders' Equity / (Deficit)		
Current liabilities:		
Accounts payable	**$ 21,711**	$ 40,976
Accrued expenses	**63,979**	44,622
Acquisition-related liabilities (current)	**8,042**	6,018
Deferred revenue	**6,866**	4,053
Other current liabilities	**5,159**	8,310
Total current liabilities	**105,757**	103,979
Non-current liabilities:		
Long-term borrowings	**183,613**	189,693
Acquisition-related liabilities (non-current)	**14,915**	17,137
Warrants and derivative liabilities	—	58,100
Other non-current liabilities	**2,492**	2,387
Total non-current liabilities	**201,020**	267,317
Total liabilities	**306,777**	371,296
Commitments and contingencies (See Note 12)		
Mezzanine equity:		
Redeemable convertible preferred stock $ 0.001 per share par value, up to 60,137,979 shares authorized, 39,223,194 shares issued and outstanding as of December 31, 2020	—	154,210
Stockholders' equity / (deficit):		
Series A common stock $ 0.001 per share par value, up to 204,220,800 shares authorized, 112,012,693 shares issued and outstanding as of December 31, 2020	—	112
Series B common stock $ 0.001 per share par value, up to 3,400,000 shares authorized, 3,054,318 shares issued and outstanding as of December 31, 2020	—	3
Class A common stock $ 0.001 per share par value, up to 3,750,000,000 shares authorized, 159,974,847 shares issued and outstanding as of December 31, 2021	**160**	—
Class B common stock $ 0.001 per share par value, up to 50,000,000 shares authorized, 37,856,095 shares issued and outstanding as of December 31, 2021	**38**	—
Additional paid-in capital	**584,208**	4,956
Accumulated deficit	**(491,817)**	(242,254)
Accumulated other comprehensive loss	**(2,101)**	(2,037)
Total stockholders' equity / (deficit)	**90,488**	**(239,220)**
Total liabilities, mezzanine equity and stockholders' equity / (deficit)	**$ 397,265**	**$ 286,286**

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,		
	2021	**2020**	**2019**
Revenues	**$ 458,338**	$ 368,120	$ 306,051
Operating expenses:			
Cost of revenues (excluding depreciation and amortization)	**174,720**	148,878	110,385
General and administrative expenses	**189,606**	70,849	73,344
Selling and marketing expenses	**229,343**	77,140	69,519
Research and development expenses	**64,474**	31,772	28,685
Depreciation and amortization	**45,922**	40,064	34,340
Acquisition-related expenses	**1,953**	5,402	5,916
Restructuring expenses	**727**	2,090	1,388
Total operating expenses	**$ 706,745**	$ 376,195	$ 323,577
Loss from operations	**(248,407)**	(8,075)	(17,526)
Interest expense	**7,033**	16,257	15,491
Other (income) / expenses	**(279)**	(126)	239
Gain on extinguishment of debt	**(10,000)**	—	—
Change in fair value of warrants and derivative liabilities	**5,000**	28,100	4,200
Total other expenses	**$ 1,754**	$ 44,231	$ 19,930
Loss before income taxes	**(250,161)**	(52,306)	(37,456)
Income tax (benefit) / provision	**(598)**	919	1,009
Net loss	**$ (249,563)**	**$ (53,225)**	**$ (38,465)**
Other comprehensive loss:			
Foreign currency translation adjustment	**(64)**	(190)	(76)
Total comprehensive loss	**$ (249,627)**	**$ (53,415)**	**$ (38,541)**
Net loss per share			
Net loss	$ (249,563)	$ (53,225)	$ (38,465)
Cumulative redeemable convertible preferred stock dividends	7,060	19,571	17,278
Net loss available to common stockholders	**$ (256,623)**	**$ (72,796)**	**$ (55,743)**
Basic loss per share	$ (2.95)	$ (2.23)	$ (1.77)
Diluted loss per share	$ (2.95)	$ (2.23)	$ (1.77)
Weighted average number of shares used to compute net loss per share			
Basic	**86,932,191**	32,589,409	31,579,301
Diluted	**86,932,191**	32,589,409	31,579,301

The Company recorded total stock-based compensation as follows:

	Year ended December 31,		
	2021	**2020**	**2019**
Cost of revenues (excluding depreciation and amortization)	**$ 2,589**	$—	$ —
General and administrative expenses	**100,160**	105	216
Selling and marketing expenses	**129,577**	—	—
Research and development expenses	**26,833**	—	—
Total	**$ 259,159**	**$105**	**$ 216**

See accompanying notes to consolidated financial statements.

Consolidated Statements of Changes in Redeemable Convertible Preferred Stock and Stockholders' Equity / (Deficit)
Years Ended December 31, 2021, 2020 and 2019
(In thousands, except shares)

	Redeemable Convertible Preferred Stock		Series A common stock		Series B common stock		Class A common stock		Class B common stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount				
Balance as of January 1, 2019	**36,905,708**	**$ 144,885**	**84,734,787**	**$ 85**	**3,054,318**	**$ 3**	**—**	**—**	**—**	**—**	**$ (383)**	**$ (168,364)**	**$ (1,771)**	**$(170,430)**
Adjustments for warrants as a result of adoption of ASU 2017-11	—	—	—	—	—	—	—	—	—	—	—	17,800	—	17,800
Shares issued with connection with acquisitions	2,317,486	9,325	1,533,742	1	—	—	—	—	—	—	4,614	—	—	4,615
Restricted stock grants	—	—	14,362,905	14	—	—	—	—	—	—	(14)	—	—	—
Restricted stock forfeitures	—	—	(1,950,118)	(2)	—	—	—	—	—	—	2	—	—	—
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	216	—	—	216
Warrant and options exercised	—	—	658,626	1	—	—	—	—	—	—	5	—	—	6
Foreign currency translation adjustment	—	—	—	—	—	—	—	—	—	—	—	—	(76)	(76)
Net loss	—	—	—	—	—	—	—	—	—	—	—	(38,465)	—	(38,465)
Balance as of December 31, 2019	**39,223,194**	**$ 154,210**	**99,339,942**	**$ 99**	**3,054,318**	**$ 3**	**—**	**$ —**	**—**	**$ —**	**$ 4,440**	**$ (189,029)**	**$ (1,847)**	**$(186,334)**
Shares issued in connection with an agreement	—	—	154,560	—	—	—	—	—	—	—	424	—	—	424
Restricted stock grants	—	—	14,508,504	15	—	—	—	—	—	—	(15)	—	—	—
Restricted stock forfeitures	—	—	(1,990,313)	(2)	—	—	—	—	—	—	2	—	—	—
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	105	—	—	105
Foreign currency translation adjustment	—	—	—	—	—	—	—	—	—	—	—	—	(190)	(190)
Net loss	—	—	—	—	—	—	—	—	—	—	—	(53,225)	—	(53,225)
Balance as of December 31, 2020	**39,223,194**	**$ 154,210**	**112,012,693**	**$ 112**	**3,054,318**	**$ 3**	**—**	**$ —**	**—**	**$ —**	**$ 4,956**	**$ (242,254)**	**$ (2,037)**	**$(239,220)**
Conversion of Seies A and Series B common stock into Class A and Class B common stock, respectively	—	—	(96,830,836)	(97)	(3,054,318)	(3)	60,421,367	61	39,463,787	39	—	—	—	—
Conversion of redeemable convertible preferred stock to common stock	(39,223,194)	(154,210)	—	—	—	—	73,813,713	74	—	—	193,136	—	—	193,210
Warrants and options exercised	—	—	—	—	—	—	8,392,316	8	—	—	24,230	—	—	24,238
Shares issued in connection with the Initial Public Offering, net of issuance cost	—	—	—	—	—	—	14,773,939	15	—	—	126,523	—	—	126,538
Shares repurchased	—	—	—	—	—	—	(4,138,866)	(4)	(2,307,692)	(2)	(64,462)	—	—	(64,468)
Restricted stock cancelation	—	—	(17,853,416)	(18)	—	—	—	—	—	—	18	—	—	—
Shares issued in connection with certain agreements	—	—	613,497	1	—	—	4,124,914	4	—	—	29,645	—	—	29,650
Restricted stock grants	—	—	3,687,431	4	—	—	5,989,392	6	700,000	1	(11)	—	—	—
Restricted stock forfeitures	—	—	(1,629,369)	(2)	—	—	(3,736,010)	(4)	—	—	6	—	—	—
Common shares cancelation	—	—	—	—	—	—	(37,679)	—	—	—	—	—	—	—
Restricted stock units vesting	—	—	—	—	—	—	219,072	—	—	—	—	—	—	—
Shares issued in connection with employee stock purchase plan	—	—	—	—	—	—	152,689	—	—	—	809	—	—	809
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	269,358	—	—	269,358
Foreign currency translation adjustment	—	—	—	—	—	—	—	—	—	—	—	—	(64)	(64)
Net loss	—	—	—	—	—	—	—	—	—	—	—	(249,563)	—	(249,563)
Balance as of December 31, 2021	**—**	**$ —**	**—**	**$ —**	**—**	**$ —**	**159,974,847**	**$ 160**	**37,856,095**	**$ 38**	**$ 584,208**	**$ (491,817)**	**$ (2,101)**	**$ 90,488**

See accompanying notes to consolidated financial statements.

Consolidated Statements of Cash Flows
(In thousands)

	Year ended December 31,		
	2021	**2020**	**2019**
Cash flows from operating activities:			
Net loss	**$ (249,563)**	$ (53,225)	$ (38,465)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Depreciation and amortization	**45,922**	40,064	34,340
Stock-based compensation	**259,159**	105	216
Gain on extinguishment of debt	**(10,000)**	—	—
Deferred income taxes	**(2,475)**	(98)	(59)
Change in fair value of warrant and derivative liabilities	**5,000**	28,100	4,200
Others, net	**45**	4,180	2,388
Change in non-cash working capital (net of acquisitions):			
Accounts receivable	**(1,155)**	24,347	18,907
Prepaid expenses	**(3,067)**	(551)	(80)
Other current assets	**5,725**	632	(6,203)
Other non-current assets	**(592)**	1,479	330
Deferred revenue	**2,813**	2,402	(2,772)
Accounts payable	**(22,243)**	4,443	22,227
Accrued expenses and other current liabilities	**14,618**	(15,491)	(6,484)
Other non-current liabilities	**105**	(848)	2,054
Net cash provided by operating activities	**44,292**	35,539	30,599
Cash flows from investing activities:			
Capital expenditures	**(9,482)**	(2,249)	(3,300)
Website and software development costs	**(17,274)**	(22,958)	(19,374)
Business and asset acquisitions, net of cash acquired	**(20,093)**	—	(38,986)
Net cash used for investing activities	**(46,849)**	(25,207)	(61,660)
Cash flows from financing activities:			
Cash paid for acquisition-related liabilities	**(9,850)**	(717)	(1,772)
Proceeds from pay-check protection program loan	**—**	10,000	—
Proceeds from term loan, net of issuance costs	**183,311**	—	24,500
Proceeds from initial public offering, net of issuance cost	**126,538**	—	—
Repurchase of restricted stock	**(64,468)**	—	—
Proceeds from employees' stock purchase plan	**809**	—	—
Exercise of warrants and options	**137**	—	—
Proceeds from credit lines	**—**	—	7,000
Repayments against the credit facilities	**(180,745)**	(6,500)	(1,700)
Net cash provided by financing activities	**55,732**	2,783	28,028
Effect of exchange rate changes on cash and cash equivalents	**(41)**	(208)	(75)
Net increase / (decrease) in cash and cash equivalents, including restricted cash	**53,134**	12,907	(3,108)
Cash and cash equivalents and restricted cash, beginning of period	**50,725**	37,818	40,926
Cash and cash equivalents and restricted cash, end of period	**$ 103,859**	$ 50,725	$ 37,818
Supplemental cash flow disclosures including non-cash activities:			
Cash paid for interest	**$ 7,004**	$ 13,070	$ 12,222
Cash paid for income taxes, net	**$ 1,758**	$ 1,296	$ 783
Liability established in connection with acquisitions	**$ 10,185**	$ —	$ 26,488
Capitalized stock-based compensation as website and software development costs	**$ 10,196**	$ —	$ —
Shares issued in connection with acquisitions and other agreements	**$ 29,650**	$ 424	$ 13,940
Dividends on redeemable convertible preferred stock settled in Company's equity	**$ 60,082**	$ —	$ —
Non-cash settlement of warrants and derivative liabilities	**$ 63,100**	$ —	$ —
Non-cash consideration for website and software development costs	**$ 1,551**	$ 1,110	$ 614

See accompanying notes to consolidated financial statements.

NOTE 1—Organization and Background

(a) Nature of Business

Zeta Global Holdings Corp., a Delaware Corporation ("Zeta Global Holdings") and Zeta Global Corp. (the "operating company"), a Delaware Corporation ("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.

(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 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.

The Company may enter into multiple contracts with a single counterparty at or near the same time. 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 as a package with a single commercial objective, (ii) consideration to be paid in one contract depends on the price or performance of the other contract, and (iii) goods or services promised are a single performance obligation.

The Company enters into certain contracts with its vendors that involve both the purchase and sale of services with a single counterparty. The Company assesses each contract to determine if the revenue and expense should be presented gross or net. The Company recognizes revenue for these contracts to the extent that SSP is established for distinct services provided. Any excess consideration above the established SSP of services is presented as an offset to cost of revenues in the Consolidated Statements of Operations and Comprehensive Loss.

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 contracts, the Company contracts with customers to provide 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 option, a subscription fee option and a fixed cost per impression ("CPM") pricing option. CPM refers to a payment option in which customers pay a price for every impressions an ad receives. Customers can use the software platform on a self-service basis to execute their advertising campaigns. The Company generates 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 the Company does not obtain control of the ad spots prior to transfer to the customer in these arrangements, revenue is recognized on a net basis.

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 fulfill 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.

Contract assets and liabilities

Contract assets represent revenue recognized for contracts that have not been invoiced to customers. Total contract assets were $2,286 and $1,709 as of December 31, 2021 and 2020, 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, 2021 and 2020, the Company billed and collected $56,481 and $41,432 in advance, respectively, and recognized $53,668 and $38,850, respectively, as revenues. As of the years ended on December 31, 2021 and 2020, the deferred revenues are $6,866 and $4,053, respectively.

Practical expedients and exemptions

The Company applies the optional exemptions and does not disclose: a) information about remaining performance obligations that have an original expected duration of one year or less; or b) 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. 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

Transaction price allocated to the remaining performance obligations represents contracted revenues that have not yet been recognized, which includes unearned revenues and unbilled amounts that will be recognized as revenues in future periods. Transaction price allocated to the remaining performance obligations is influenced by several factors, including seasonality, the timing of renewals, average contract terms and foreign currency exchange rates. Unbilled portions of the remaining performance obligations are subject to future economic risks including bankruptcies, regulatory changes and other market factors.

The Company excludes amounts related to performance obligations that are billed and recognized as the services are provided. This primarily consists of professional services contracts that are on a time-and-materials basis.

The Company has remaining performance obligation associated with a fixed commitment contract for future services that have not yet been recognized in its Consolidated Statements of Operations and Comprehensive Loss.

Disaggregationof 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 not 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, 2021 and December 31, 2020:

	Year ended December 31,		
	2021	2020	2019
Direct Platform Revenue	76%	68%	69%
Integrated Platform Revenue	24%	32%	31%

Refer to *Segments* in this Note 2 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 and addressing disputes related to those transactions. 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. As of December 31, 2021, the Company had $260 outstanding liability related to the restructuring activities carried during financial year 2021. There was no such outstanding liability as of December 31, 2020. Further, there are no incomplete restructuring plans as of December 31, 2021 and 2020.

(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 FDIC insurance limits. As of December 31, 2021 and 2020, approximately 0.5% and 1.8% of cash and cash equivalents, respectively, was held in accounts outside the United States and not protected by FDIC insurance.

As of December 31, 2021 and 2020, 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, 2021 and 2020:

Balance as of January 1, 2020	**$1,210**
Bad debt expense	792
Acquisition-related provisions	404
Write offs	(199)
Balance as of December 31, 2020	**$2,207**
Bad debt expense	43
Write offs	(955)
Balance as of December 31, 2021	**$1,295**

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, 2021, and 2020, the Company had $2,286 and $1,709 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	3-5
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, 2021 and 2020

(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 to customize it to the Company's needs. 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 Company annually assesses whether triggering events are present to review internal-use software for impairment. The estimated useful life of the Company's website and software development costs is three years.

(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. Based on this assessment, no impairment was recorded for the years ended December 31, 2021 and 2020.

(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, 2021, 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, 2021 and 2020 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, 2021, the difference between the fair value and the book value of the reporting units was in the range of $46,395-$326,746.

(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 functional currency of each entity in the Company is its respective local country currency which is also the currency of the primary economic environment in which it operates. 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 statements of income.

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. Warrants and derivative liabilities as of December 31, 2020 were extinguished upon conversion of those instruments into Company's common stock upon its IPO.

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, 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:

Warrants and derivative liabilities as of December 31, 2020 represents warrants to purchase shares of the Company's common stock that it issued in connection with previous financing rounds and a derivative liability representing the conversion feature associated with such financing transactions. The warrants and derivative liabilities as of December 31, 2020 were extinguished upon the Company's IPO and as such there were no such liabilities as of December 31, 2021.

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.

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

The measurement of stock-based compensation for all stock-based payment awards, including restricted shares, performance stock units ("PSU"), employee stock purchase plan shares ("ESPP") 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.

The Company accounts for the modification to the already issued awards under the guidance in ASC 718-20-35-3.

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 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.

Since the Company's restricted stock and restricted stock units had both a performance condition (i.e. initial public offering) and a service condition, the Company uses the graded vesting attribution method to recognize the stock-based compensation.

The Company has issued PSUs to certain employees and has also adopted an ESPP plan during the year ended December 31, 2021. The fair value of PSU awards was determined using the Monte Carlo simulation method and for ESPP using the Black-Scholes 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,		
	2021	2020	2019
US	$428,941	$340,723	$289,267
International	29,397	27,397	16,784
Total revenues	**$458,338**	**$368,120**	**$306,051**

Total long-lived assets by geographical region consisted of the following:

	Year ended December 21,	
	2021	2020
US	$ 43,023	$ 38,413
International	645	595
Total long-lived assets	**$ 43,668**	**$ 39,008**

New accounting pronouncements

Recently adopted:

In August 2018, the FASB issued ASU No. 2018-15, Intangibles—Goodwill and Other—Internal-Use Software Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement that Is a Service Contract. The guidance requires certain costs incurred during the application development stage to be capitalized and other costs incurred during the preliminary project and post-implementation stages to be expensed as they are incurred. Capitalized implementation costs related to a hosting arrangement that is a service contract will be amortized over the term of the hosting arrangement, beginning when the module or component of the hosting arrangement is ready for its intended use. A customer's accounting for the hosting component of the arrangement is not affected. The Company adopted the ASU 2018-15 as of January 1, 2021, and there was no material impact to its consolidated financial statements.

In December 2019, the FASB issued ASU 2019-12, "Income Taxes Topic 740-Simplifying the Accounting for Income Taxes" ("ASU 2019-12"), which intended to simplify various aspects related to accounting for income taxes. ASU 2019-12 removes certain exceptions to the general principles in Topic 740 and also clarifies and amends existing guidance to improve consistent application of Topic 740. This guidance is effective for fiscal years beginning after December 15, 2020 including interim periods therein, and early adoption is permitted. The Company adopted ASU 2019-12 on January 1, 2021. The adoption of this standard did not have material impact on the Company's consolidated financial statements.

Not yet adopted:

In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)," ("ASU 2016-02"). The standard establishes a ROU model that requires a lessee to recognize a right of use ("ROU") asset and a lease liability on the balance sheet for all leases with a term longer than 12 months (based on the practical expedient provided in the ASU that allows 12 months or less not to be presented on the balance sheet) and requires the disclosure of key information about leasing arrangements. Leases are classified as finance or operating, with classification affecting the subsequent expense pattern and presentation of expense recognition in the income statement. Subsequently, the FASB issued the following standards related to ASU 2016-02: ASU 2018-01, "Land Easement Practical Expedient for Transition to Topic 842", ASU 2018-10, "Codification Improvements to Topic 842, Leases", ASU 2018-11, "Leases (Topic 842): Targeted Improvements" ("ASU 2018-11"), ASU 2018-20, "Narrow-Scope Improvements for Lessors" and ASU 2019-01, "Leases (Topic 842): Codification Improvements", which provided additional guidance and clarity to ASU 2016-02 (collectively, the "Lease Standard"). In 2021, the FASB further released ASU No. 2021-05, Leases (Topic 842) – Lessors – Certain

Leases with Variable Lease Payments (“ASU 2021-05”), ASU No. 2021-09, Leased (Topic 842)- Discount Rate for Lessees That Are Not Public Business Entities (“non-PBE”) (“ASU 2021-09”).

As per ASU 2020-05, issued by FASB, the new guidance is applicable to a non-PBE from fiscal year beginning after December 15, 2021 and interim periods beginning after December 15, 2022. As of December 31, 2021, the Company holds emerging growth company status, as such it is permitted to use non-PBE adoption of ASC 842 and therefore will present the impact of the new guidance in its annual statement as of December 31, 2022 and interim statements thereafter.

The Company is currently in the process of evaluating the impact of ASC 842 adoption will have on its consolidated financial statements and related disclosures.

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 2021-03)”. 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. The ASU may be applied through December 31, 2022. The Company is currently evaluating additional impacts this ASU will have on its consolidated financial statements and related disclosures.

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 should be effective for all entities for fiscal years beginning after December 15, 2021, including interim periods within those fiscal years. The Company does not expect the adoption of this new guidance to have material impact on its consolidated financial statements and related 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. Hence, the Company will be evaluating the impact of adoption of this guidance for the annual and interim reporting period beginning January 2023.

NOTE 3—Property and Equipment, Net

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

	December 31, 2021	December 31, 2020
Computer equipment and purchased software	$ 18,900	$ 16,317
Office equipment and furniture	1,635	1,738
Leasehold improvements	2,196	2,179
Property and equipment – gross	**22,731**	**20,234**
Less: Accumulated depreciation	(17,101)	(14,117)
Property and equipment, net	**$ 5,630**	**$ 6,117**

Depreciation expense for the years ended December 31, 2021 and 2020 was $3,220 and $3,069, 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, 2021	December 31, 2020
Website and software development costs	$ 130,617	$ 102,706
Less: Accumulated amortization	(92,579)	(69,815)
Website and software development costs, net	**$ 38,038**	$ 32,891

Website and software development costs capitalized during the years ended December 31, 2021 and 2020 were $27,911 and $24,067, respectively. Depreciation expense for website and software development costs for the years ended December 31, 2021 and 2020 was $22,764 and $21,423, respectively.

NOTE 5—Intangible Assets, Net

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

	December 31, 2021			December 31, 2020		
	Gross value	Accumulated amortization	Net Value	Gross value	Accumulated amortization	Net Value
Data supply relationships	$ 8,750	$ 1,875	$ 6,875	$ —	$ —	$ —
Tradenames	2,720	2,171	549	2,720	1,634	1,086
Completed technologies	23,092	17,568	5,524	20,292	13,037	7,255
Customer relationships	65,999	37,984	28,015	45,239	24,989	20,250
Total intangible assets	**$ 100,561**	**$ 59,598**	**$ 40,963**	**$ 68,251**	**$ 39,660**	**$ 28,591**

Amortization expense of intangibles for the years 2021 and 2020 was $19,938 and $15,572, respectively.

Weighted average useful life of the unamortized intangibles as of December 31, 2021 was 3.60 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,	
2022	$ 18,718
2023	9,426
2024	4,964
2025	2,414
2026	2,001
2027 and thereafter	3,440
Total	**$ 40,963**

NOTE 6—Goodwill

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

Balance as of January 1, 2020	**$ 78,150**
Adjustment of IgnitionOne	(1,734)
Foreign currency translation	16
Balance as of December 31, 2020	**$ 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**

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, 2021 and 2020.

(a) 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.

The acquisition of Kinetic contributed $835 in the Company's consolidated revenues during the year ended December 31, 2021, however the net income contribution of this acquisition was immaterial to the Company's consolidated financial statements.

(b) 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.

Caivis, one of the Company's related parties, owned 5% interest in Vital as of the effective date of this stock purchase agreement (refer to Note 17 for a description of relationship with Caivis).

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.

The acquisition of Vital contributed $7,142 in the Company's consolidated revenues during the year ended December 31, 2021, however the net income contribution of this acquisition was immaterial to the Company's consolidated financial statements.

(c) 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.

The acquisition of Apptness contributed $3,105 in the Company’s consolidated revenues during the year ended December 31, 2021, however the net income contribution of this acquisition was immaterial to the Company’s consolidated financial statements.

Pro Forma Information—The unaudited pro forma consolidated revenues of the Company for the year ended December 31, 2021 and 2020 were $468,570 and $385,623, respectively, as if the business combinations had taken place on January 1, 2020. The unaudited pro forma earnings of these acquired businesses were insignificant to consolidated net loss from January 1, 2021 to December 31, 2021.

NOTE 8—Acquisition-Related Liabilities

The following is a summary of acquisition-related liabilities:

	eBay CRM	Disqus	Sizmek	PlaceIQ	IgnitionOne	Unsubcentral	Kinetic	Vital	Apptness	Total
Balance as of January 1, 2020	**$ 17,137**	**$ 120**	**$ 3,525**	**$ 1,034**	**$ 1,360**	**$ 240**	**$ —**	**$ —**	**$ —**	**$ 23,416**
Payments made during the year	—	—	—	(320)	—	(240)	—	—	—	(560)
Change in fair value of earn-out	—	(120)	877	(458)	—	—	—	—	—	299
Balance as of December 31, 2020	**$ 17,137**	**$ —**	**$ 4,402**	**$ 256**	**$ 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)	—	—	(64)	—	—	—	—	—	**(9,850)**
Change in fair value of earn-out	649	—	(1,942)	(192)	—	—	—	—	(338)	**(1,823)**
Balance as of December 31, 2021	**$ 8,000**	**$ —**	**$ 1,927**	**$ —**	**$ 1,360**	**$ —**	**$ 24**	**$2,840**	**$ 8,806**	**$ 22,957**

The changes in the fair value of the acquisition-related liabilities are included in other (income) / 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.

On October 14, 2021, the Company paid a portion of the liability for $9,786 to the sellers of eBay CRM business in satisfaction of a judgment, which was being accrued at $9,137. As such, the Company accrued an additional amount of $649 during the year ending on December 31, 2021 such that the Company has full accrual for the payment relating to this liability as of December 31, 2021. Further, the Company had provided a letter of credit amounting to $6,028, against these payable amounts, which was canceled on November 8, 2021, upon satisfaction of the judgment.

Another portion of the liability, which stands at $8,000, 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 lower than the accruals as of December 31, 2021.

During January 2022, the Company reached a settlement with the sellers of Sizmek to resolve its dispute related to the contingent purchase consideration payable in connection with its Sizmek acquisition made during the year ended December 31, 2019. As such, the Company agreed to pay $1,085 in cash and issue 100,000 shares of Class A common stock. Further, Sizmek also collected $533 on behalf of the Company from certain customers and both parties have agreed, as part of the settlement agreement, that Sizmek would retain this amount.

NOTE 9—Accrued expenses

The details of accrued expenses are set forth below:

	December 31, 2021	December 31, 2020
Accrued expenses	**$ 26,464**	$ 23,202
Payroll related liabilities	**36,768**	20,649
Others	**747**	771
Accrued expenses	**$ 63,979**	$ 44,622

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, 2021 and 2020.

Financial instruments that potentially subject the Company to concentration risk consist primarily of accounts receivable from customers. As of December 31, 2021, there was no customer that represented more than 10% of accounts receivables balance as of that date. As of December 31, 2020, the Company had receivables from one of its customers, which represented 14% of the total account receivables balance as of that date. The Company continuously monitors whether there is an expected credit loss arising from this customer, and as of the year ended December 31, 2021, no provision was warranted or recorded.

NOTE 11—Credit Facilities

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

	December 31, 2021	December 31, 2020
Credit facility	**$ 185,000**	$ 137,950
Loan under pay-check protection program	—	10,000
Revolving loan	—	42,600
Total borrowings	**185,000**	**190,550**
Less:		
Unamortized discount on debt	—	(426)
Unamortized deferred financing cost	**(1,387)**	(431)
Long-term borrowings	**$ 183,613**	**$ 189,693**

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.

The Senior Secured Credit Facility is for up to $222,500, which consists of (i) a $73,750 initial Revolving Facility that was drawn at closing date, (ii) a $111,250 Term Facility that was drawn at closing date, and (iii) a $37,500 in incremental Revolving Facility commitment that remains undrawn. In addition, the Company has an outstanding letter of credit amounting to $1,244 against the available revolving credit facility. On November 8, 2021 a letter of credit amounting to $6,028 (in connection with the acquisition-related liabilities) was closed (refer to Note 8). 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, 2021 was 2.6%. 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. The Company incurred $1,699 as debt issuance costs in the form of the legal fee, underwriter's fee, etc., and these costs are recognized as a reduction in the 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 shareholders, 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, 2021, the applicable total leverage ratio and fixed charge coverage ratio were 3.0 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, 2021 and 2020 was approximately $182,192 and $152,538, 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, 2021, the repayment schedule for the long-term borrowings was as follows:

Year ended December 31,	
2022	$ 5,625
2023	11,250
2024	11,250
2025	16,875
2026	140,000
Total*	**$ 185,000**

* Includes $5,625 repayable against the term loan facility within the twelve-month period ending December 31, 2022. 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, 2021.

The long-term borrowings as of December 31, 2020, consisted of revolving credit of $42,600 and term loan facility of $137,950.

The Company entered into a revolving credit, guarantee and security agreement with a financial institution in July 2016, as amended in May 2017. The agreement provided for a maximum revolving advance amount of $50,000. In addition to $42,600 under this facility, the Company also had an outstanding letter of credit amounting to $7,272 as of December 31, 2020. The credit facility was fully secured by the financial institution with a first lien on the Company's account receivables.

In July 2015, the Company entered into a term loan facility with a financial institution The term loan facility, as amended, was for up to $142,950, which consisted of a $70,000 initial term loan that was drawn at closing date, a $32,950 delay draw term loan and $40,000 in an incremental term loan commitment. As of December 31, 2020, the Company had an undrawn facility of $5,000, on the delay draw term loan. The Company is required to repay the principal balance and any unpaid accrued interest on the loans at the maturity date of July 29, 2022. The financial institution had a second lien on the account receivables of the Company and first lien on all the other assets.

The Senior Secured Credit Facility, entered into by the Company on February 3, 2021 was used to fully repay and terminate the revolver and the term loan facilities with a total payoff amount of $42,792 and $137,953, respectively.

NOTE 12—Commitments and Contingencies

Purchase obligations

The Company entered into non-cancelable vendor agreements to purchase services. As of December 31, 2021, the Company was party to outstanding purchase contracts as follows:

Year ended December 31,	
2022	$ 19,607
2023	20,917
2024	21,033
2025	5,700
2026	1,425
2027 and thereafter	—
Total	**$ 68,682**

Lease commitments

The Company maintains leased offices in the United States of America, United Kingdom, India, Belgium and France. Deferred rent as of December 31, 2021 and 2020 was $2,508 and $2,652, respectively for these leases and is included in other current liabilities and noncurrent liabilities on the consolidated balance sheets. Commitments for the base rents are as follows:

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**

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, which did not include an initial public offering. 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 will 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. The stock-based compensation has been recognized following the vesting of restricted stock, restricted stock units and options as described below.

In the past, the Company has canceled 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.

Restricted Stock and Restricted Stock Units

As noted above, the Company's restricted stock and restricted stock units 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. Pursuant to that approval, the existing restricted stock and restricted stock units were divided into three broad categories with different vesting conditions as follows:

a) For the first category of holders, terms of the modification provide the holders an option to tender up to 20% of their outstanding awards to the Company in a buy-back program for a cash payout on the effective date of the IPO, with the remaining percentage of the awards subject to future vesting beginning at the end of the first quarter following the one-year anniversary of the IPO and extending for a period of four years thereafter.

b) For the second category of holders, terms of the modification provide for vesting upon the effective date of the IPO as follows: (i) 25% of shares with an original grant date of less than five years prior to the IPO and (ii) 100% of shares with a grant date of five years or older. Post IPO, additional vesting is deferred for one year. Thereafter the remaining shares shall vest in equal quarterly installments at the end of each quarter until the fifth anniversary of the date of the original grant.

c) For the third category of holders, terms of the modification provide for vesting to begin at the end of the first quarter following the one-year anniversary of the IPO, with such shares vesting in equal quarterly installments at the end of each quarter until the fifth anniversary of the date of the IPO.

The revised terms were communicated to the restricted stock and restricted stock unit holders.

The above 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 restricted stock or restricted stock units that were tendered by the holders in the buy-back program for the first category of restricted stock and restricted stock units were liability classified and as such the expense related to these grants has been recognized based on the settlement price as of the date of IPO. In connection with the other two categories of holders, the Company will recognize compensation expense over the modified vesting terms, based on the fair value as of the date of modification. The portion of the awards subject to future service would remain classified as equity awards and expense would be recognized over the remaining future service period.

The 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, 2020	**73,385,779**	**$ 2.56**
Granted	14,508,504	4.08
Vested	—	—
Forfeited	(1,990,313)	3.25
Non-vested as of December 31, 2020	**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**

(1) During the year ended December 31, 2021, the Company granted 10,376,823 restricted stock and 295,724 restricted stock units to its employees and board members, of which 1,660,677 restricted stock and 98,993 restricted stock units were granted prior to March 12, 2021 and will be governed by the vesting rules described in a), b) and c) above. Remaining shares that were granted on or after March 12, 2021 shall vest over a period of four years, with 25% vesting on the one-year anniversary of the IPO and the remainder vesting in equal quarterly installments thereafter through the 4th anniversary of the grant date. The Company also converted 1,198,219 restricted stock into restricted stock units for certain employee related grants included in the canceled grants in the statements of changes in redeemable preferred stock and stockholders' equity / (deficit) for the year ended December 31, 2021.

(2) During the year ended December 31, 2021, the 5,365,379 restricted stock and 20,928 restricted stock units were forfeited.

(3) During the year ended December 31, 2021, the Company also canceled 16,655,197 shares of restricted stock granted to holders of Series A redeemable convertible preferred shares (see Note 14).

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 December 31, 2019	1,220,110	$ 3.61	6.29	$ —
Vested	(1,520)	8.99	—	—
Forfeited	(67,697)	2.41	—	—
Outstanding options as of December 31, 2020	**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**

The Company did not grant any options during the years ended December 31, 2021 and December 31, 2020. There was no unrecognized expense related to stock options as of December 31, 2021.

Performance Stock Unit ("PSU") Award

On August 18, 2021, the Compensation Committee of the Board of Directors approved 1,500,000 PSU awards 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 3,000,000 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 June 30, 2022 and ending with, and including, the three month period ending on December 31, 2025. 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 $ 10	$10.00	$12.50	$ 15.00	$ 18.50	$ 22.00
Percentage of target PSUs	0%	25%	50%	100%	150%	200%

Upon being earned and subject to the participant's continued service, PSUs will vest in three equal annual installments, with the first installment vesting on the date of determination for the applicable quarter for which such PSUs were earned, and the second and third installments vesting on the first and second anniversaries, respectively of such quarterly determination date, subject to accelerated vesting in connection with a change in control. In the event of participant's termination of service for any reason, all unvested PSUs will immediately and automatically be canceled and forfeited, except, to the extent a participant is terminated without cause or resigns for good reason, (i) any PSUs earned for any quarter prior to the date of termination will fully vest, and (ii) any PSUs earned in the quarter in which the termination date occurs will fully vest.

The Company engaged a third-party valuation firm to determine the estimated fair value of the PSUs using the Monte Carlo simulation method, which was determined as $1.95 per PSU using the following assumptions.

	Year ended December 31, 2021
Dividend yield	**0.0%**
Risk free interest rate	**0.06%**
Volatility	**51.0%**

During the year ended December 31, 2021, the Company recognized an expense of $270 related to target PSUs during such period.

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 occurring six months later, as applicable.

During the year ended December 31, 2021, the Company recognized an expense of $482 at fair value of $2.16 per 2021 ESPP share for 152,689 shares, related to the enrollments under the first offering period that commenced from August 1, 2021 and ended on November 30, 2021 and $3.39 per 2021 ESPP share for 238,338 shares, related to the offering period that commenced from December 31, 2021 and will end on May 31, 2022. The fair value of the 2021 ESPP was determined, based on the Black-Scholes-method, by a third-party valuation firm engaged by the Company using the following assumptions

	Year ended December 31, 2021
Dividend yield	**0.0%**
Risk free interest rate	**0.06%**
Volatility	**66%**

Unrecognized stock-based compensation

The Company has $540,431 of unrecognized stock-based compensation related to its 65,208,870 unvested restricted stock and restricted stock units, 1,500,000 performance stock units and common stock to be issued under the 2021 ESPP. This unrecognized stock-based compensation will be recognized over a weighted average period of 1.28 years.

NOTE 14—Stockholders' Equity / (Deficit)

On February 24, 2021, the Company's Board of Directors approved the correction of the conversion price of Series A redeemable convertible preferred shares held by certain stockholders and cancelation of 16,655,197 shares of restricted stock granted to these holders of Series A redeemable convertible preferred shares. The Board of Directors determined that the restricted shares were issued to those stockholders in order to avoid dilution of their ownership in the Company as a result of other grants of shares. It was further determined that the dilutive effect of those other restricted shares should have been addressed by an adjustment to the conversion price of the Series A redeemable convertible preferred shares. Therefore, the issuance of the restricted shares to these holders of the Series A redeemable convertible preferred shares was determined to be an error and were duplicative with the corrected calculation of the conversion price of Series A redeemable convertible preferred shares. The conversion price of these Series A redeemable convertible preferred stock was adjusted to $0.073587 from $0.59.

In connection with the Company's IPO all the issued and outstanding redeemable convertible preferred shares were converted into the Company's Class A common stock. Further, the issued and outstanding Series A and Series B common stock were also converted into Class A and Class B common stock.

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 each of the Reorganization Transactions described in Note 1, as a result of the Company's IPO.

Rights of Class A and Class B common stockholders:

The Company's Amended and Restated Certificate of Incorporation defines the rights of the different classes of common stock as under:

- Equal Status- Except as otherwise provided in the Certificate of Incorporation or required by applicable law, shares of Class A common stock and Class B common stock shall have the same rights, privileges and powers, rank equally (including as to dividends and distributions, and upon any liquidation, dissolution, distribution of assets or winding up of the Company), share ratably and be identical in all respects and as to all matters.
- Voting- Except as otherwise required by applicable law, at all meetings of stockholders and on all matters submitted to a vote of stockholders of the Company generally, each holder of Class A common stock, as such, shall have the right to one (1) vote per share of Class A common stock held of record by such holder and each holder of Class B common stock, as such, shall have the right to ten (10) votes per share of Class B common stock held of record by such holder.
- Dividend Rights- Shares of Class A common stock and Class B common stock shall be treated equally, identically and ratably, on a per share basis, with respect to any dividends as may be declared and paid from time to time by the Board of Directors of the Company.
- Liquidation, Dissolution or Winding Up- Subject to the preferential or other rights of any holders of Preferred Stock then outstanding, upon the dissolution, distribution of assets, liquidation or winding up of the Company, whether voluntary or involuntary, holders of Class A common stock and Class B common stock will be entitled to receive ratably all assets of the Company available for distribution to its stockholders unless disparate or different treatment of the shares of each such class with respect to distributions upon any such liquidation, dissolution, distribution of assets or winding up is approved by the affirmative vote of the holders of a majority of the outstanding shares of Class A common stock and Class B common stock, each voting separately as a class.

Shares issued in connection with settlement of a dispute

In connection with a settlement of a dispute with a vendor, the Company issued 200,000 shares which it recorded as a General & Administrative expense in the consolidated statements of operations and comprehensive loss.

NOTE 15—Warrants and Derivative Liabilities

The following assumptions were used to determine the fair value of the warrants and derivative liabilities for the year ended December 31, 2020:

	Year ended December 31, 2020
Stock price	$ 7.56
Exercise price	$ 0.01
Risk-free interest rate	0.09%
Expected volatility	64.0%
Time to maturity (in years)	0.63

In connection with the Company's IPO, all the outstanding warrants were exercised by holders of those warrants and redeemable convertible preferred stock were converted to Class A common stock of the Company. The derivative liability that represented the conversion feature of certain redeemable convertible preferred stock has also been settled in the additional paid in capital upon the IPO.

For the years ended December 31, 2021 and 2020, the Company recognized an expense related to changes in the fair value of such warrants and derivative liabilities of $5,000 and 28,100, respectively.

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, 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**

	As of December 31, 2020			
	Level 1	Level 2	Level 3	Total
Assets				
Cash and cash equivalents*	$12,257	$ —	$ —	$12,257
Total assets measured at fair value	**$12,257**	**$ —**	**$ —**	**$12,257**
Liabilities				
Derivative liability	$ —	$ —	$38,400	$38,400
Warrant liability	—	—	19,700	19,700
Acquisition-related liabilities	—	—	23,155	23,155
Total liabilities measured at fair value	**$ —**	**$ —**	**$81,255**	**$81,255**

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

As of December 31, 2021 and December 31, 2020, the Company determined that the Term Loan is classified as Level 3 (see Note 11) and its fair value was $182,192 and $152,538, respectively.

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, 2021 and 2020:

	Warrant liability	Acquisition-related liabilities	Derivative Liability
Balance as of January 1, 2020	**$ 8,000**	**$ 23,416**	**$ 22,000**
Payments made during the year	—	(560)	—
Change in fair value	11,700	299	16,400
Balance as of December 31, 2020	**$ 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**	**$ —**

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 contingent consideration's fair value.

NOTE 17—Related Party Transactions

1. Caivis Acquisition Corp. II, Caivis Acquisition Corp. IV, Caivis Investment Company V, LLC and Caivis Investment Company VI, LLC (collectively, the "Caivis Group") are entities owned by many of the same stockholders of the Company. In addition, the Chief Executive Officer of the Company owns a controlling interest in the Caivis Group. On April 9, 2012, the Company amended its agreement with the Caivis Group, whereby the Caivis Group will provide support for general administrative and corporate development activities, including sourcing and evaluating potential partners and acquisition targets to the Company for $2,000 per year. This agreement with the Caivis Group was terminated on December 31, 2019 and therefore no such expenses are incurred during the year ended December 31, 2021 and December 31, 2020. As of December 31, 2020, the Company had outstanding payables of $533 to the Caivis Group included in the "accounts payable and accrued expenses" in the consolidated balance sheets. During the year ended on December 31, 2021, the Company paid an amount of $533 and as such there is no outstanding payable to the Caivis Group as of December 31, 2021.

2. Casting Made Simple Corp. ("CMS") is an entity owned by 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 Company recognized $249 and $342 for the year ended December 31, 2021 and December 2020, respectively as direct cost of revenues in the consolidated statements of operations and comprehensive loss, representing the profit shared by the Company with CMS. As of December 31, 2021 and December 31, 2020, the Company had outstanding payables of $20 and $70, respectively to CMS and included in the "accounts payable and accrued expenses" in the consolidated balances sheets.

3. Prior to acquisition, Kinetic Data Solutions, LLC ("Kinetic") was an entity in which Caivis group was the majority shareholder. 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 $129 and $353 under this contract during the year ended December 31, 2021 and December 31, 2020, respectively. As of December 31, 2020, the Company had outstanding receivables of $353, in the consolidated balance sheets.

4. The Company had an outstanding long-term debt of $137,950 as of December 31, 2020 from investors in Series E-1 redeemable convertible preferred stock. During the year ended on December 31, 2020, the Company has recognized an interest expense of $12,605, respectively on this debt. The redeemable convertible preferred stock as of December 31, 2020 were converted into common stock upon the IPO and as such there were no such redeemable convertible preferred stock as of December 31, 2021. Further, this loan amount was repaid in full as part of Company's refinancing in February 2021. (see Note 11).

NOTE 18—Income Taxes

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

	Year ended December 31,		
	2021	2020	2019
Domestic operations	$ (253,462)	$ (54,885)	$ (40,492)
Foreign operations	3,301	2,579	3,036
Loss before income taxes	**$ (250,161)**	**$ (52,306)**	**$ (37,456)**

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

	Year ended December 31,	
	2021	2020
Current		
Federal	$ —	$ (22)
State and local	97	125
Foreign	1,790	911
Total current income taxes	$ 1,887	$ 1,014
Deferred:		
Federal	$ (1,422)	$ 21
State and local	(460)	—
Foreign	(603)	(116)
Total deferred income benefits	(2,485)	(95)
Income tax (benefit) / provision	**$ (598)**	**$ 919**

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

	Year ended December 31,	
	2021	2020
Deferred tax assets:		
Accounts receivable reserve	$ 273	$ 466
Accrued payroll	4,990	1,771
Net operating loss carry forward	44,675	39,135
Stock-based compensation	24,586	73
Interest limitation carry forward	6,012	5,609
Fixed assets	1,158	—
Intangible assets	7,891	6,782
Capital losses	1,170	1,172
Accrued expenses and other	1,220	963
	$ 91,975	**$ 55,971**

	Year ended December 31,	
	2021	2020
Less: Valuation allowance	(86,210)	(52,089)
Deferred tax assets	$ 5,765	$ 3,882
Deferred tax liabilities:		
Fixed assets	(14)	(612)
Deferred state income tax and other	(4,795)	(2,904)
Deferred tax liabilities:	(4,809)	(3,516)
Net deferred tax assets	**$ 956**	**$ 366**

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 2021, the Company's valuation allowance increased by $34,121.

The following table reconciles the changes in the valuation allowance for the years ended December 31, 2021 and 2020:

Balance as of January 1, 2020	**$(44,684)**
Increase due to current year pre-tax loss	(7,396)
Others	(9)
Balance as of December 31, 2020	**(52,089)**
Increase due to current year pre-tax loss	(34,127)
Others	6
Balance as of December 31, 2021	**$(86,210)**

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

	December 31, 2021	December 31, 2020
U.S. federal statutory rate	21.0%	21.0%
State income taxes	4.6%	2.5%
Other permanent differences	—	(0.4)%
Non-deductible stock compensation	(3.2)%	—
Non-deductible officer's compensation	(8.1)%	—
Change in fair value of warrant and derivative liability	(0.4)%	(11.2)%
Change in valuation allowance	(13.7)%	(14.1)%
State change in tax rate	—	(0.1)%
Net effect of foreign operations	—	(0.2)%
Other	—	0.8%
Effective tax rate	0.2%	(1.7)%

For the year ended December 31, 2021, the income tax benefit of $598 relates primarily to (i) the partial release of the Company's U.S. valuation allowance as certain business combinations consummated during 2021 created a source of future taxable income, offset by (ii) an income tax provision for foreign taxes. For the year ended December 31, 2020, the Company recorded an income tax provision of $919 primarily related to foreign income taxes.

As of December 31, 2021, the Company had U.S. federal net operating loss carryforwards of approximately $159,346 of which $21,400 are subject to an annual limitation pursuant to IRC Section 382. Approximately, $112,024 of U.S. federal net operating loss carryforwards expire in varying amounts during 2031 to 2037, if not utilized. These net operating losses are available to offset 100% of future taxable income. The remaining $47,322 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 $142,862 which will expire in varying amounts during 2023 through 2041, if not utilized. The Company also had federal capital loss carryforwards of $4,179 as of December 31, 2021. Capital loss carryforwards are only available to offset capital gain income and will expire in 2023 if not utilized.

As of December 31, 2021, the Company had federal deferred interest carryforwards under IRC Section 163(j) of $20,853. 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, 2020	**$281**
Increase in tax positions for current / prior periods	(40)
Balance as of December 31, 2020	**241**
Increase in tax positions for current / prior periods	(18)
Balance as of December 31, 2021	**$223**

As of December 31, 2021, the accrued amount of interest and penalties was $55. 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	2018
Czech Republic	2018
France	2018
India	2019
Mexico	2017
UK	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, 2021 and 2020, the Company accrued employees' eligible contributions according to the 401(k)-plan document which totaled to $1,050 and $928, respectively. The amount of contributions related to the year ended December 31, 2020 was fully paid during 2021.

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, 2021 and 2020 of 66,708,870 and 85,903,970, 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,		
	2021	**2020**	**2019**
Numerator:			
Net loss	$ (249,563)	$ (53,225)	$ (38,465)
Cumulative redeemable convertible preferred stock dividends	7,060	19,571	17,278
Numerator for Basic and Dilutive loss per share – loss available to common stockholders	**$ (256,623)**	**$ (72,796)**	**$ (55,743)**
Denominator:			
Class A common stock	61,972,951	—	—
Class B common stock	10,143,209	—	—
Series A common stock	11,904,161	26,108,723	24,848,615
Series B common stock	1,372,351	3,054,318	3,054,318
Warrants	1,539,519	3,426,368	3,676,368
Denominator for Basic and Dilutive loss per share – weighted-average common stock	**86,932,191**	**32,589,409**	**31,579,301**
Basic loss per share	**$ (2.95)**	$ (2.23)	$ (1.77)
Dilutive loss per share	**$ (2.95)**	$ (2.23)	$ (1.77)

Since the Company was in a net loss position for all periods presented, basic loss per share calculation excludes redeemable convertible preferred stock as it does not participate in net losses of the Company. Additionally, net loss per share attributable to common stockholders was the same on a basic and diluted basis, as the inclusion of all potential common equivalent shares outstanding would have been anti-dilutive.

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

	Year ended December 31,		
	2021	2020	2019
Options	940,653	1,106,220	1,266,291
Warrants	—	1,973,763	1,973,763
Preferred stock	—	39,223,194	39,223,194
Restricted stock and restricted stock units	70,650,049	85,903,970	73,385,779
Performance stock units	558,904	—	

NOTE 21—Other (income) / expenses

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

	Year ended December 31,		
	2021	2020	2019
Change in the fair value of acquisition-related liabilities	$(1,828)	$ 299	$ 1,687
Loss / (gain) on sale of assets	266	(412)	(1,802)
Foreign currency translation loss / (gain)	1,283	(13)	354
Total other (income) / expenses	**$ (279)**	**$(126)**	**$ 239**

NOTE 22—Subsequent Events

On February 23, 2022, the Compensation Committee of the Board of Directors approved the grant of 1,979,500 PSUs awards to certain employees. Upon achievement of the certain market conditions described below, the PSUs could result in the issuance of up to 7,438,500 shares of Class A common stock based on the following tiered schedule:

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%.

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, 2021. 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, 2021.

Changes in Internal Control over Financial Reporting

During the audits of our financial statements for the years ended December 31, 2020 and 2019, three material weaknesses were identified in our internal control over financial reporting. Under standards established by the PCAOB, a “material weakness” is a deficiency, or combination of deficiencies in internal control over financial

reporting, such that there is a reasonable possibility that a material misstatement of the financial statements will not be prevented or detected on a timely basis. The material weaknesses that were identified related to lack of segregation of duties, lack of a risk assessment process and lack of contemporaneous documentation and accounting analysis.

We took actions to remediate the material weakness relating to our internal controls over financial reporting, as described below. The controls and processes we implemented to remediate the identified material weakness included:

- hiring qualified personnel with expertise in financial reporting aspects which also provided segregation of duties within our internal control procedures to support the accurate reporting of our financial results;
- the engagement of third-party advisory firm to assist in the complex accounting matters;
- designing and implementing improved processes and internal controls, including ongoing senior management review; and
- designing and implementing the risk assessment process.

As a result of the remediation activities and controls in place as of December 31, 2021 described above, we have remediated these previously disclosed material weaknesses. However, completion of remediation does not provide assurance that our remediated controls will continue to operate properly or that our financial statements will be free from error.

Other than the remediation steps taken above, there were no additional changes in our internal control over financial reporting that occurred during the period covered by this Annual Report on Form 10-K that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

This Annual Report on Form 10-K does not include a report of management's assessment regarding internal control over financial reporting or an attestation report of the Company's registered public accounting firm due to a transition period established by the rules of the SEC for newly public companies.

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, 2021.

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, 2021.

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, 2021.

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, 2021.

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, 2021.

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					X	
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					X	
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 25, 2022

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 David Steinberg	Chief Executive Officer *(Principal Executive Officer)*	February 25, 2022
/s/ Christopher Greiner Christopher Greiner	Chief Financial Officer (*Principal Financial Officer)*	February 25, 2022
/s/ Satish Ravella Satish Ravella	SVP - Finance *(Principal Accounting Officer)*	February 25, 2022
/s/ Jené Elzie Jené Elzie	Director	February 25, 2022
/s/ William Landman William Landman	Director	February 25, 2022
/s/ Robert Niehaus Robert Niehaus	Director	February 25, 2022
/s/ William Royan William Royan	Director	February 25, 2022
/s/ John Sculley John Sculley	Director	February 25, 2022

Corporate Information

Directors

David Steinberg
Chairman of the Zeta Board and Co-Founder and CEO of Zeta

Jené Elzie (CC) (NCG)
Chief Growth Officer for Athletes First Partners

William Landman (AC) (CC) (NCG)
Co-founder and Managing Principal of MainLine Investment Partners, LLC

Robert Niehaus (AC*) (CC*)
Chairman and Founder of GCP Capital Partners LLC

William Royan (AC)
Managing Partner and Chair of the Investment Committee of GPI Capital

John Sculley (NGC*)
Co-Founder and Vice Chairman of Zeta

Board Committees

AC Audit Committee
CC Compensation Committee
NCG Nominating & Corporate Governance Committee
* Denotes committee chairperson

Executive Officers

David Steinberg
Chairman and Chief Executive Officer

Christopher Greiner
Chief Financial Officer

Steven Gerber
President and Chief Operating Officer

Executive Offices

3 Park Ave, 33rd Floor
New York, NY 10016
Phone: (212) 967-5055
www.zetaglobal.com

Form 10-K

A copy of the Company's Annual Report on Form 10-K is available without charge upon request by sending a written request to our Secretary at Zeta Global Holdings Corp., 3 Park Ave, 33rd Floor, New York, NY 10016. You also may access our Annual Report on Form 10-K online at *www.investors.zetaglobal.com*.

Common Stock Information

The Company's Class A Common Stock (ZETA) is listed on the NYSE.

Annual Meeting Date

The Company's annual meeting of stockholders will be held on Monday, June 13, 2022
Check-in begins: 12:30 p.m.;
Meeting begins: 1:00 p.m.;
(all times U.S. Eastern Time)

Independent Registered Public Accounting Firm

Deloitte & Touche LLP
500 East Pratt Street, Suite 500
Baltimore, MD 21202

Transfer Agent

Computershare
462 South 4th Street, Suite 1600
Louisville, KY 40202
Telephone: (800) 736-3001

Investor Relations

For more information, contact:
Scott Schmitz, SVP, Investor Relations at ir@zetaglobal.com