

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

FORM 10-K

☒ **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**

Commission File Number: 001-38897

FASTLY, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

27-5411834
(I.R.S. Employer
Identification Number)

**475 Brannan Street, Suite 300
San Francisco, CA 94107**
(Address of principal executive offices) (Zip code)

(844) 432-7859
(Registrant's telephone number, including area code)

Not Applicable
(Former name, former address, or former fiscal year, if changed since last report)

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, \$0.00002 par value	FSLY	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 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	☐	Smaller reporting company	☐
		Emerging growth company	☐

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

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

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant, based on the closing price of \$59.60 for a share of the Registrant's Class A common stock on June 30, 2021 (the last business day of the registrant's most recently completed second quarter), as reported by the New York Stock Exchange on such date, was approximately \$5.6 billion.

As of February 18, 2022, 120.3 million shares of the registrants' Class A common stock were outstanding.

Portions of the registrant's Definitive Proxy Statement relating to the 2022 Annual Meeting of Stockholders are incorporated by reference into Part III of this Annual Report on Form 10-K where indicated. Such Definitive Proxy Statement will be filed with the Securities and Exchange Commission within 120 days after the end of the registrant's fiscal year ended December 31, 2021.

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SPECIAL 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"), about us and our industry that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this Annual Report on Form 10-K, including statements regarding our future results of operations and financial condition, business strategy, and plans and objectives of management for future operations, are forward-looking statements. In some cases, forward-looking statements may be identified by words such as "anticipate," "believe," "continue," "could," "design," "estimate," "expect," "intend," "may," "plan," "potentially," "predict," "project," "should," "will," "would," "target," or the negative of these terms or other similar expressions.

Forward-looking statements are based on our management's beliefs and assumptions and on information currently available. These forward-looking statements are subject to a number of known and unknown risks, uncertainties and assumptions, including risks described in the section titled "Risk Factors" and elsewhere in this Annual Report on Form 10-K, regarding, amongst other things:

- defects, interruptions, outages, delays in performance, or similar problems with our platform, including the impact of our global platform outage on June 8, 2021;
- our ability to attract new enterprise customers and to have existing enterprise customers continue and increase their use of our platform;
- our ability to forecast our revenue accurately and manage our expenditures;
- the potential loss or significant reduction in usage by one or more of our major customers;
- component delays, shortages, and price increases;
- our limited operating history and history of operating losses;
- our ability to adapt and respond effectively to rapidly changing technology, evolving industry standards, changing regulations, and changing customer needs, requirements, or preferences;
- our ability to effectively develop and expand our marketing and sales capabilities;
- our ability to compete effectively with existing competitors and new market entrants;
- our ability to maintain and enhance our brand;
- our ability to identify and integrate acquisitions, strategic investments, partnerships, or alliances, including our acquisition of Signal Sciences Corporation ("Signal Sciences");
- security measures, or those maintained on our behalf, are compromised, or the security, confidentiality, integrity or availability of our information technology, software, services, networks, communications or data is compromised, limited or fails;
- our ability to attract and retain qualified employees and key personnel;
- our potential involvement in class-action lawsuits and other litigation matters;
- the impact of the ongoing COVID-19 pandemic on our business, operations, and the markets and communities in which we, our partners, and our customers operate;
- our ability to remediate material weaknesses and maintain effective internal control over financial reporting; and
- our stock price may be volatile, and the value of our Class A common stock may decline.

We caution you that the foregoing list may not contain all of the forward-looking statements made in this Annual Report on Form 10-K.

Other sections of this Annual Report on Form 10-K may include additional factors that could harm our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time, and it is not possible for our management to predict all risk factors nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ from those contained in, or implied by, any forward-looking statements.

You should not rely upon forward-looking statements as predictions of future events. We cannot assure you that the events and circumstances reflected in the forward-looking statements will be achieved or occur. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this Annual Report on Form 10-K or to conform these statements to actual results or to changes in our expectations. You should read this Annual Report on Form 10-K and the documents that we reference in this Annual Report on Form 10-K and have filed as exhibits to this Annual Report on Form 10-K with the understanding that our actual future results, levels of activity, performance, and achievements may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the filing date of this Annual Report on Form 10-K, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

Investors and others should note that we may announce material business and financial information to our investors using our investor relations website (www.investors.fastly.com), our filings with the Securities and Exchange Commission, webcasts, press releases, and conference calls. We use these mediums, including our website, to communicate with investors and the general public about our company, our products, and other issues. It is possible that the information that we make available on our website may be deemed to be material information. We therefore encourage investors and others interested in our company to review the information that we make available on our website.

RISK FACTOR SUMMARY

Our business is subject to significant risks and uncertainties that make an investment in us speculative and risky. Below we summarize what we believe are the principal risk factors but these risks are not the only ones we face, and you should carefully review and consider the full discussion of our risk factors in the section titled “Risk Factors”, together with the other information in this Annual Report on Form 10-K. If any of the following risks actually occurs (or if any of those listed elsewhere in this Annual Report on Form 10-K occurs), our business, reputation, financial condition, results of operations, revenue, and future prospects could be seriously harmed. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, may also become important factors that adversely affect our business.

- If our platform fails to perform properly due to defects, interruptions, outages, delays in performance, or similar problems, and if we fail to develop enhancements to resolve any defect, interruption, delay, or other problems, we could lose customers, become subject to service performance or warranty claims or incur significant costs.
- If we are unable to attract new customers, in particular, enterprise customers, and to have existing enterprise customers continue and increase their use of our platform, our business will likely be harmed.
- If we fail to forecast our revenue accurately, or if we fail to manage our expenditures, our operating results could be adversely affected.

- We receive a substantial portion of our revenues from a limited number of customers from a limited number of industries, and the loss of, or a significant reduction in usage by, one or more of our major customers would result in lower revenues and could harm our business.
- Component delays, shortages or price increases could interrupt our ability to complete the construction of our servers to meet the usage needs of our customers.
- Our limited operating history and our history of operating losses makes it difficult to evaluate our current business and prospects and may increase the risks associated with your investment.
- If our security measures, or those maintained on our behalf, are compromised now, or in the future, or the security, confidentiality, integrity or availability of our information technology, software, services, networks, communications or data is compromised, limited or fails, our business could experience a materially adverse impact, including significant costs and disruptions that could harm our business, financial results, and reputation.
- If we fail to adapt and respond effectively to rapidly changing technology, evolving industry standards, changing regulations, and changing customer needs, requirements, or preferences, our products may become less competitive.
- Failure to effectively develop and expand our marketing and sales capabilities could harm our ability to increase our customer base and achieve broader market acceptance of our platform.
- The markets in which we participate are competitive, and if we do not compete effectively, our business will be harmed.
- If we fail to maintain and enhance our brand, our ability to expand our customer base will be impaired and our business, results of operations and financial condition may suffer.
- Acquisitions, strategic investments, partnerships, or alliances, including our acquisition of Signal Sciences, could be difficult to identify and integrate, divert the attention of management, disrupt our business, and dilute stockholder value.
- The failure to attract and retain additional qualified personnel could prevent us from executing our business strategy.
- In the future, we may be involved in class-action lawsuits and other litigation matters that are expensive and time-consuming. If resolved adversely, lawsuits and other litigation matters could seriously harm our business.
- Health epidemics, including the ongoing COVID-19 pandemic, have had, and could in the future have, an adverse impact on our business, operations, and the markets and communities in which we, our partners and customers operate.
- We have identified three material weaknesses in our internal control over financial reporting, and if we are unable to remediate and maintain effective internal control over financial reporting in the future, investors may lose confidence in the accuracy and completeness of our financial reports, and the market price of our Class A common stock may be seriously harmed.
- Our stock price may be volatile, and the value of our Class A common stock may decline.

PART I

Item 1. Business

Overview

Developers are reinventing the way we live, work, and play online. Yet they repeatedly encounter innovation barriers when delivering modern digital experiences. Expectations for digital experiences are at an all-time high; they must be fast, secure, and highly personalized. If they aren't reliable, end-users simply take their business elsewhere. The challenge today is enabling developers to deliver a modern digital experience while simultaneously providing scale, security, and performance. We built our edge cloud platform to solve this problem.

The edge cloud is an emerging category of Infrastructure as a Service ("IaaS") that enables developers to build, secure, and deliver digital experiences, at the edge of the internet. This service represents the convergence of the Content Delivery Network ("CDN") with functionality that has been traditionally delivered by hardware-centric appliances such as Application Delivery Controllers ("ADC"), Web Application Firewalls ("WAF"), Bot Detection, Distributed Denial of Service ("DDoS") and observability solutions. It also includes the emergence of a new, but growing, edge computing market which aims to move compute power and logic as close to the end-user as possible. The edge cloud uses the emerging cloud computing, serverless paradigm in which the cloud provider runs the server and dynamically manages the allocation of machine resources while offering flexibility and control to developers. When milliseconds matter, processing at the edge is an ideal way to handle highly dynamic and time-sensitive data. This has led to its acceptance and adoption by organizations who monetize or grow their user base with every millisecond saved. Organizations that want their websites to load faster for every user can benefit from processing at the edge. The edge cloud complements data center, central cloud, and hybrid solutions.

Our mission is to fuel the next modern digital experience by providing developers with a programmable and reliable edge cloud platform that they adopt as their own.

Organizations must keep up with complex and ever-evolving end-user requirements. We help them surpass their end-users' expectations by powering fast, secure, and scalable digital experiences. We built a powerful edge cloud platform, designed from the ground up to be programmable and support agile software development. We believe our platform gives our customers a significant competitive advantage, whether they were born into the digital age or are just embarking on their digital transformation journey. Our platform consists of four key components: a programmable edge, a software-defined modern network, safety in depth, and a philosophy of customer empowerment. Our programmable edge provides developers with real-time visibility and granular control, where they can write and deploy code in a serverless environment and to push application logic to the edge. It provides tooling and templates to deploy some of the most commonly used workflows and leverages modern application delivery processes, thus freeing developers to innovate without constraints. Our software-defined modern network is built for the software-defined future. It is powerful, efficient, and flexible, designed to enable us to rapidly scale to meet the needs of the most demanding customers and never be a barrier to their growth. Our 184 terabit software-centric network is located across 71 markets as of December 31, 2021. We define markets as unique metropolitan areas where we have one or more Points of Presence ("POPs"). Our safety in depth approach integrates security into multiple layers of development: architecture, engineering, and operations. That's why we invest in building security into the fabric of our platform, alongside performance. We provide developers and security operations teams with a fast, safe environment to create, build, and run modern applications.

Our platform provides developers and security operations teams with solutions that foster innovation without impacting performance. Finally, being developers ourselves, we empower customers to build great things while supporting their efforts through frictionless tools and a deeply technical support team that facilitates ongoing collaboration.

We serve both established enterprises, mid-market companies and technology-savvy organizations. Our customers represent a diverse set of organizations across many industries with one thing in common: they are competing by using the power of software to build differentiation at the edge. With our edge cloud platform, our customers are disrupting existing industries and creating new ones. For example, several of our customers have reinvented digital publishing by connecting readers through subscription models to indispensable content, helping people understand the world through deeply reported independent journalism. Our customers' software applications use our edge cloud platform to deliver consistently excellent

online shopping experiences, fast and more secure financial transactions, and broadcast quality live streaming on any device. The range of applications that developers build with our edge cloud platform continues to expand rapidly.

So where do we go from here? Our vision is to create a trustworthy internet, where good thrives. We want all developers to have the ability to deliver the next transformative digital experience on a global scale. And because big ideas often start small, we love it when developers experiment and iterate on our edge cloud platform, coming up with exciting new ways to solve today's complex problems.

Our Dollar-Based Net Expansion Rate ("DBNER"), Net Retention Rate ("NRR") and Last-Twelve Months Net Retention Rate ("LTM NRR") metrics measure the revenue growth from existing customers attributable to increased usage of our platform and features, and purchase of additional products and services. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Business Metrics" for further discussion of DBNER, NRR and LTM NRR.

The financial results of Signal Sciences have been consolidated into our financial results and key metrics since October 1, 2020, the date of acquisition. Our DBNER was 120.9% and 143.6% for the years ended December 31, 2021 and December 31, 2020, respectively. Our NRR was 106.6% and 116.3% for the years ended December 31, 2021 and December 31, 2020, respectively. Our LTM NRR was 117.6% and 137.4% for the years ended December 31, 2021 and December 31, 2020, respectively. We believe the LTM NRR is supplemental as it removes some of the volatility inherent in a usage-based business model from the measurement of the NRR metric.

For the years ended December 31, 2021, December 31, 2020, and December 31, 2019, our revenue was \$354.3 million, \$290.9 million, and \$200.5 million, respectively. We incurred a net loss of \$222.7 million, \$95.9 million and \$51.6 million for the years ended December 31, 2021, December 31, 2020, and December 31, 2019, respectively.

Our Solution: Fastly's Edge Cloud Platform

We have built a powerful, serverless edge cloud platform, designed from the ground up to be programmable and support agile software development. We process, serve, and secure our customers' applications as close to their end-users as possible, at the edge of the internet for enhanced performance and protection. We believe our platform gives our customers a significant competitive advantage whether they are just embarking on their digital transformation journey or natively born into the new digital age.

Fastly Edge Cloud Platform



Our edge cloud platform is based on several core tenets:

- Developers must be empowered to innovate;
- Platforms must innovate ahead of market demands while still being reliable, scalable, and secure;
- Security should be developer-friendly, easy-to-use and available wherever you need it; and
- Vendors must provide exceptional flexibility and support.

With this in mind, our platform consists of four key components: a programmable edge, a software-defined modern network, safety in depth, and a philosophy of customer empowerment.

Programmable Edge

Our programmable edge sits in an extremely privileged position, between our customers' applications and their end-users, placing our services closer to those users. It is composed of our highly configurable cache layer, our Varnish-based development environment, and our new serverless compute products. It is designed to create a space for developers to innovate at their own pace, by providing:

- *Full programmability.* Our powerful platform allows developers to write and deploy their custom code to push application logic to the edge. We believe that logic like API routing and responses, A/B testing, URL redirects, paywall authentication, and location/language customization can all be delivered faster and more efficiently at the edge;
- *Reusable modules.* Our platform includes reusable modules based on commonly deployed custom code examples. We package and add these reusable modules to our platform, which enables developers to accelerate customer onboarding and reduces implementation difficulty;

- *Real-time visibility and control.* Our edge cloud platform is designed with instant visibility and control as a core tenet. We stream log data from our network edge in real time so developers can instantly see the impact of new code in production, troubleshoot issues as they occur and rapidly identify suspicious traffic. We also empower developers with distributed, real-time control of their application code and configurations;
- *Agile development.* Developers can build Fastly into their technology stack to power continuous integration and continuous deployment ("CI/CD") efforts. They can use our edge cloud platform to iterate and innovate rapidly by deploying their new code to production multiple times a day as they test new features, fix bugs, or enhance existing offerings. Fastly also supports DevSecOps efforts, allowing developers to introduce automated security controls early in the application development cycle, thus minimizing vulnerabilities and eliminating costly rework further down the line; and
- *Serverless compute environment.* With our serverless compute environment, developers can build even more complex use cases on our edge cloud platform, without having to worry about the underlying infrastructure. Built on WebAssembly, a new type of code that can be run in modern web browsers and extends the web platform to support compiled languages like C, C++, Rust Go and more, rather than existing technologies like re-usable containers, it empowers developers to write code in their preferred language and run it anywhere at near-native speeds.

Edge Use Cases

Below are some examples of use cases our customers have solved for using Fastly's programmable edge:

- *API acceleration.* Accelerate and secure critical application programming interface ("API") responses at the edge for delightful application experiences, such as instant hotel lookup based on location and real-time inventory updates between retail stores and their online storefronts;
- *Internet of things ("IoT").* Process and secure data from connected devices at the edge for instant results for time-sensitive applications;
- *Cloud migration.* Seamlessly migrate from data center to cloud, hybrid or multi-cloud environments, enabling customers to take advantage of the functionality and cost savings of one or more cloud providers; and
- *Enabling blockchain.* Cache and accelerate individual transactions on the blockchain in real time.

Software-Defined Modern Network

Our edge cloud platform is designed to take advantage of the modern internet. Our philosophy has been to differentiate through software by building one powerful software-centric network composed of unique and proprietary components. Our approach is designed to give us the flexibility to innovate and build so we will never be a barrier to our customers' growth, and consists of the following key elements:

- *Software-centric approach at global scale.* From the start, we realized that single purpose hardware-based solutions that rely on custom-designed chips are inflexible. Custom hardware, like routers, load balancers, and security appliances, do not have the flexibility to support the dynamic needs of the modern internet. We started with open source software like Varnish and Linux, then rewrote it to support the use cases of a multi-tenant, high-performance edge cloud. We created our own proprietary software-defined networking stack with built-in routing and load balancing, a storage system for optimal storage usage and performance, a massive data pipeline to send customer logs, a cache invalidation system that purges content around the world in an average of 150 milliseconds or less, and a proprietary control panel that allows our customers to update their edge application logic and configurations in seconds around the world. We architected the software to run on custom-designed servers built upon commodity components and network hardware so that we can control every aspect of the network, from request to response and drive as much utilization and scale as possible. Our software-centric approach is designed for better network efficiency and greater flexibility to scale as we add more services;

- *POP design.* We built Fastly for the internet of today—meaning fewer POPs, each with massive scale and located at the key interconnection points of the internet. Our POPs are connected directly to the core internet, each connecting directly to core Internet Service Provider ("ISPs") and 100 Internet Exchange Points as of December 31, 2021 to offer high performance in long-tail content caching. We run fewer clusters of more powerful servers that provide superior performance for customers who expect updates to be pushed out to their global end-users nearly instantaneously. Legacy Content Delivery Networks ("Legacy CDNs") do not offer this benefit, as it is extremely difficult to update hundreds of thousands of servers around the world;
- *Server efficiency.* We have a highly efficient global server footprint because we combine advanced server and network hardware with our world class software at each of our POPs. Our servers are optimized to handle the complex workloads of compute at the edge by using high-end Central Processing Units and significant amount of Random Access Memory to process Varnish Configuration Language ("VCL"). We use solid-state drives, for fast and constant lookup times, and modern 100 Gigabit Ethernet for robust bandwidth. This, combined with our algorithms and custom software, gives us the flexibility to scale while dramatically reducing operating burden;
- *One network.* We have built a single powerful, compliant network to support customers' security and delivery needs:
 - Our single network is designed to provide the massive scale needed to defend against today's growing DDoS threats without sacrificing performance. The servers in our platform provide all of the features of our product suite, allowing rapid and predictable scaling;
 - We help meet customers' Payment Card Industry ("PCI"), Health Insurance Portability and Accountability Act ("HIPAA"), and Service Organization Control ("SOC") needs without impacting performance. Because of our flexible routing and server architecture, we do not need to send PCI traffic off to a separate sub-optimal network;
 - Our network is self-healing, with cutting-edge discovery and failover techniques that allow us to select the best performing path for customer's traffic in order to avoid "internet weather disruptions", which are temporary, short-lived connectivity or performance degradation issues which are typically experienced by internet transit providers on a daily basis.

Common Use Cases. Our powerful network along with our operational efficiency can easily handle use cases that are traditionally solved by CDNs. Some of these examples include:

- *Infrastructure-agnostic traffic distribution.* Support enterprise hybrid and multi-cloud strategies by intelligently routing traffic across different cloud providers, or between cloud and on-premise data centers, regardless of location;
- *Efficient traffic spike management.* Allow enterprises to accommodate traffic spikes by intelligently and rapidly distributing content requests across their network;
- *Live streaming at scale.* Deliver highly-reliable live streaming experiences with minimal interruptions, even when concurrently streaming to large global audiences;
- *Responsive mobile applications.* Serve rapidly-changing mobile content from the edge, enabling end-users to instantly access the very latest news updates, weather forecast, hotel availability, or store inventory from their mobile applications;

Safety in Depth

We believe that security should be integrated seamlessly into every layer of development: architecture, programming, and operations. That's why we built security into the fabric of our platform, alongside performance. We provide developers and security operations teams with a fast, safe environment to create, build, and run modern applications with:

- *Operational agility.* Our edge cloud platform minimizes risk through instant visibility and control. Security operation teams can use our real-time data feeds to see threats and exposures to vulnerabilities as they emerge. Our products are designed to make rule changes on the fly and update policies around the globe in seconds based on real-time traffic insights, without having to engage professional services. These features allow our security offerings to integrate into enterprise security software development cycles, thereby supporting modern DevSecOps practices;
- *Performance centric.* Fastly's security offerings allow developers to iterate and test code quickly, while providing security teams with tools that reduce risk without impeding performance. Our high-bandwidth, globally distributed network naturally scales to absorb disruptive DDoS attacks. Our WAF and bot detection solutions are built into our edge cloud platform, allowing us to protect web-based applications with minimal latency;
- *Serverless security.* Fastly's platform provides a secure, serverless development platform at the edge. It is designed to deploy custom applications, without impacting production traffic or having to worry about patching servers for the latest operating system vulnerabilities. Sandbox environments are instantly created to automatically execute code for customers for a limited period of time and rapidly decommission it, significantly reducing the attack surface; and
- *Comprehensive app and API security.* With our acquisition of Signal Sciences, we now offer application and API protection wherever it's needed, not just at the network edge. Our next-generation WAF protects customer's apps and APIs whether they are on-premises, in the cloud, in containers, or in hybrid environments. Customers get protection against advanced threats, including account takeover (ATO), malicious bots, API abuse and more—all in one integrated solution. With a more modern approach to detecting and blocking attacks, customers don't need to worry about false positives or dedicate full-time staff to WAF maintenance.

Customer Empowerment Philosophy

Fastly believes in empowering our customers to build great things, while collaborating with them to promote their success. We have a unique understanding of what it takes to deliver a frictionless customer experience by providing:

- *Freedom to try.* Our free trial allows developers to sign up and start experimenting with our edge cloud platform in a frictionless, self-service manner;
- *Flexible support model.* Developers are free to program on our edge cloud platform, taking advantage of our rich documentation and expertise of our developer community. For customers who require more guidance, we provide a range of support packages and access to deep technical expertise from front-of-line support staff to technical account managers; and
- *Partner friendly.* Just as we expose the ability to program at the edge to our customer base, we extend that power and functionality to our partners as well. This allows our partners to build out applications that run at the edge, and provide a feature or service that is complementary to our platform. We enable these integrations with a focus on API-support and a large number of code libraries.

Growth Strategy

Key elements of our growth strategy include the following:

- *Invest in our technology platform.* We intend to continue to invest in our large-scale, enterprise-grade edge cloud platform which is both developer-friendly and fully programmable and addresses the needs of organizations going through digital transformations. Our Edge Compute platform allows us to dramatically accelerate our pace of innovation, serving as the platform upon which Fastly builds new and differentiated products. For instance, since the end of 2015, our research and development team increased from 41 to 321 people as of December 31, 2021, deepening our talent across multiple functional groups;

- *Increase emphasis on security.* In October 2020, we completed our acquisition of Signal Sciences to further bolster our security offerings at a time when data protection has become increasingly critical. We focused on integrating the application security capabilities from Signal Sciences into a unified new product offering called Secure@ Edge. We launched our first Signal Sciences and Fastly edge compute integrated product called Next Gen WAF (powered by Signal Sciences) in Q1 2022 and will continue to add more capabilities to our security offerings. Our continued investments will allow us to fulfill our mission of giving developers more power over the security of their applications and APIs, at the edge of the network.
- *Expansion into additional vertical markets.* Our platform offers a broad range of capabilities. Our differentiated high performance and low latency delivery network and edge compute platform, as well as enhanced security capabilities with the addition of Signal Sciences technology, allows us to serve the needs of our existing customers and continue to add customers from a diverse set of industries. As we broaden our product portfolio, we intend to leverage our Next Gen WAF to expand beyond our initial verticals of technology, online retail, travel and hospitality, digital publishing, and media and entertainment into more security-conscious verticals such as healthcare and finance.
- *Further enable solution partners.* Our edge cloud platform is the backend of choice for many of the largest Platform as a Service ("PaaS") vendors serving the developer community. These PaaS vendors aggregate millions of unique web properties under one brand, using Fastly as their edge cloud. We believe that more and more web applications will be built on convenient and powerful out-of-the-box solutions offered by large PaaS vendors. Many of our solution partners are PaaS providers who built us into their platform to offer faster, more secure and scalable experience. Current examples include Brightcove, Shopify, Drupal, Magento, WIX, and Adobe Portfolio. As our partners expand their customer base, we will grow alongside them, providing us with exposure to millions of developers who will become familiar with us, and potentially become customers themselves.
- *Further enable channel partners.* With our acquisition of Signal Sciences, we have acquired a channel partner ecosystem that we are investing in to cross-sell to both Fastly and previous Signal Sciences customers while also helping drive international expansion.
- *Expand existing customer relationships.* Over time, our customers have expanded their use of our platform. In more technically savvy organizations, developers have championed our solution, paving the way for us to engage with business decision makers. For more traditional organizations, we are often brought in to initially help facilitate a move to the cloud and from there we extend our product to support many other use cases. We plan to continually increase wallet-share over time for existing customers as we build out new products and features, and as customers continue to fully recognize the value of our platform. For the years ended December 31, 2021 and December 31, 2020, our DBNER was 120.9% and 143.6%, respectively. Additionally, for the years ended December 31, 2021 and December 31, 2020, our NRR was 106.6% and 116.3%, respectively; and our LTM NRR was 117.6% and 137.4%, respectively. We believe the LTM NRR is supplemental as it removes some of the volatility inherent in a usage-based business model from the measurement of the NRR metric. Many of our largest customers have grown through a "land and expand" strategy. On average, our customers have increased their annual spend by more than 17% year over year since 2015, growing from an average last 12-months revenue of \$50,000 to over \$126,000 as of December 31, 2021.
- *Grow our technology ecosystem.* We operate between and complement the "big 3" origin cloud platforms, Amazon Web Services ("AWS"), Microsoft Azure, and Google Cloud Platform, and a growing community of companies that provide big data, machine learning, and security solutions. In this sense, we act as the unifying layer for a growing number of cloud services. As customers consume more cloud and software as a service ("SaaS") offerings, we can create additional value and grow with our partners.
- *International Expansion.* As our customer base grows, we plan to scale our network to bring edge computing closer to where our customers are. For the years ended December 31, 2021 and December 31, 2020, 27% and 32%, respectively, of our revenue was generated from customers headquartered outside

of the United States. As of December 31, 2021, we are strategically located in 71 markets, with more additions planned. We believe significant opportunity exists for international growth.

Our Products

Our edge cloud is a globally distributed, programmable platform designed for highly performant and secure web and application delivery. Our platform supports modern software development processes and empowers developers to innovate without constraints, as they lead the charge for their organizations' digital transformation. We operate a single, software-centric network. Our POPs reside between a customer's end-users and computing and data storage solutions, whether on-premise, in the cloud or a mixture of both. Our position on the network allows us to move functionality closer to end-users at the network edge for faster, more secure experiences. This includes edge compute, edge delivery, edge security, edge applications like load balancing and image optimization, video on demand, and managed edge delivery. All of our products are designed by developers for developers.

Edge Compute

We enable developers to write their own custom logic and entire applications to solve complex business problems at the network edge.

- *Compute@Edge*. This next generation serverless offering is intended to provide developers with a powerful new language-agnostic compute environment. Like all our offerings, Compute@Edge is built to be secure, performant and scalable; it offers 100x faster startup times than other solutions on the market.
- *Fastly Developer Hub*. This is a central place for developers to easily access all the tools they need to build fast, scalable and secure modern applications on our edge cloud platform. The Developer Hub includes:
 - *Solution Library* patterns and recipes: Ready-to-deploy code snippets and deployment instructions to teach developers how to do basically anything on Fastly, with everything they need to implement in their own configurations;
 - *API and language references and change logs*: Robust reference documentation and release notes provide complete access to all of the features available through the Fastly web interface and VCL; and
 - *Fastly Fiddle*: A testing sandbox to experiment with Fastly configurations and debug custom code without impacting developers' production services.

Many of the initial use cases we saw in our Compute@Edge offering were originally built in our Varnish-based development environment. We also offer a number of reusable modules based on commonly deployed Varnish custom code, including:

- *Device Detection and Geolocation*. Gives developers the ability to rapidly adjust the content served to end-users based on location, device type, and language detection;
- *Edge Dictionaries*. Empower developers to make real-time decisions from every server in our network. Edge dictionaries act as a distributed database at the edge, made up of key-value pairs. For example, Edge Dictionaries allow customers to redirect end-users to a specific country site or update large referrer spam blacklists in real time;
- *Edge Access Control Lists ("ACLs")*. Help mitigate evolving threats from attackers by letting developers make changes at scale. ACLs block bad internet protocol ("IP") addresses from visiting customer sites, and for added security, they can create their own allow-lists; and
- *Edge authentication*. Developers can add custom Varnish-based code to their app to generate tokens and authenticate users at the edge, avoiding the extra cost and latency associated with going back to origin to verify a user's identity.

Edge Delivery

Our edge delivery offerings include full site delivery and streaming for high value media.

Full Site Delivery

- *Dynamic Site Acceleration.* Speeds up requests and responses between cache nodes in our POPs and customers' origin servers, so their dynamic web and mobile content is served faster.
- *Origin Shield.* Allows us to designate a specific POP to serve as a shield for a customer's origin servers. When web content is refreshed, and multiple end-users request the new content simultaneously, it can lead to a deluge of requests hitting a customer's origin server. This can result in poor web or application performance. With Origin Shield, we collapse all these content requests into a single request and hold it in queue at the Origin Shield POP. That allows us to go back to the customer's origin server only once to retrieve the new content, then serve it to all end-users who requested it. This approach reduces costs for our customers, while improving performance for their end-users.
- *Instant Purge.* Lets customers clear the cached copy of their content globally in an average of 150 milliseconds or less. We allow customers to send a command to our platform that invalidates an old version of their content throughout our global edge infrastructure. This causes a new version of content to be retrieved from the application server the next time it is requested. This feature enables our customers to serve highly dynamic content at the edge more quickly and allows for delightful application experiences. Rapidly changing content like shopping cart items, flight search results, sports scores, or current weather conditions in any given location can all be served faster from the network edge.
- *Surrogate Keys.* Allow customers to fine-tune purging by tagging related objects across their site with a key name and description, then purging by that key. They can purge their entire site of a given object or set of objects at once, without impacting performance. For example, they could purge any images and content related to discontinued sale items, discounted products, or outdated news across their site all in one go.
- *Real-time Logging and Stats.* Provide metrics and full visibility into end-user requests in real time from the network edge. Log traffic is encrypted using Transport Layer Security ("TLS") and logs can be streamed to most major logging endpoint solutions.
- *Cloud Optimizer.* Cloud Optimizer targets eCommerce and high tech organizations who commonly work with multi-cloud or multi-CDN architectures. Cloud Optimizer sits between a customer's CDNs and cloud providers, delivering intelligent routing capabilities without the need to rearchitect their infrastructure. Like Origin Shield, it also features request collapsing, to reduce origin traffic and costs and empowers customers with greater visibility and control over their network traffic.
- *Programmatic Control.* Fastly provides direct programmatic control of edge delivery services to our customers via the Varnish Configuration Language (VCL), allowing them to precisely control what content is cached, for how long and when it should be refreshed. Combined with comprehensive APIs, VCL allows our customers to build, test and deploy custom logic, using their own development, test and deployment environment, for even the most complex digital experience.
- *Edge databases.* As described for our Edge Compute offerings, Full Site Delivery customers also have access to powerful Edge Dictionaries and Access Control Lists to enable secure and personalized digital experiences that are faster when implemented at the edge, closer to end users.
- *Content compression.* Compressing content with technologies like Gzip and Brotli provides direct performance improvements and a more responsive web experience for end users.
- *Reliability.* Full Site Delivery services leverage a number of features and technologies that help ensure a customer's content is highly available including origin health checks, a 'grace mode' feature that will continue serving content even when customer origin(s) fail, Multipath TCP, and real time error dashboards and API feeds that are backed by a 100% uptime Availability SLA.

- *Modern protocols and performance.* Fastly helps invent, standardize and deploys numerous next generation web technologies and protocols such as HTTP/3, QUIC, client hints and HTTP prioritization which ensure our customers, and the Internet in general, receive the best possible performance regardless user device, connectivity or location.

Streaming

- *Live Streaming.* Our platform is designed to concurrently deliver millions of near real-time, high-quality live streams to our customers' viewers. Our edge cloud supports the delivery of all major HTTP video streaming formats, and we partner with multiple online video platform vendors to improve the flexibility and scale of live streaming workflows, while also reducing total cost of ownership;
- *Media Shield.* Large streaming customers often route traffic across multiple CDNs for redundancy. Our Media Shield solution supports these efforts, while reducing total cost of ownership and improving visibility and performance. It does so by collapsing requests for the same video streaming content across all CDNs into one single request to the customer's origin server. This reduces requests to origin and allows us to serve streaming content faster; and
- *Origin Connect.* Ideal for companies moving more than one gigabyte of data per second, such as media, video, and streaming companies, Origin Connect provides a direct private network connection between an organization's origin server and an Origin Shield POP. It is an effective way to lower transit costs, reduce engineering complexity, and improve reliability for high-volume streaming content.

Edge Security

- *DDoS Protection.* Our high-bandwidth, globally distributed network is built to absorb DDoS attacks without impacting performance. Customers can respond to attacks in real time, filtering malicious requests at the network edge, before they reach their origin.
- *Edge WAF.* Our Fastly edge WAF is designed to protect applications from malicious attacks that would otherwise compromise web servers. It is integrated into our edge cloud platform, minimizing the impact on performance, since we only inspect requests going to a customer's origin. Customers get real-time access to security events and notifications from the edge and can make instant changes to their WAF rules via our API.
- *TLS.* As part of our standard product, our platform terminates HTTPS connections at our network edge, offloading encrypted traffic from customer's web servers for better performance. We provide a number of different certificate procurement and hosting options.
- *Platform TLS.* Our Platform TLS offering is designed to allow customers with multiple web properties to manage TLS certificates at scale, while enabling a fast, secure experience for their end-users. It supports delivery and management of hundreds of thousands of certificates, supported by our worldwide TLS termination and acceleration solution.
- *Compliance.* We speed up the caching and delivery of sensitive content at the edge, helping customers meet data compliance and privacy regulations such as HIPAA, the European Union's General Data Protection Regulation ("EU GDPR") and the United Kingdom's GDPR ("U.K. GDPR"), in addition to industry standards such as PCI Data Security Standard and SOC. Our Assurance Services offering includes support for additional documentation and audit procedures for customers with these needs.

Application and API Security

Through our acquisition of Signal Sciences, we added a unified web application and API protection solution that includes Runtime Self-Application protection (RASP), advanced rate limiting, API protection, bot management and next generation WAF.

- *Next-gen WAF.* Our next-generation Web Application Firewall protects applications from malicious attacks that seek to compromise apps and APIs. Our solution requires no tuning, and is more accurate

than the traditional rule or signature-based approaches. Our WAF can be installed in any infrastructure; cloud, container, on-premise data center or hybrid environments.

- *Runtime Application Self-Protection (RASP).* RASP protects from real-time attacks by embedding directly into application source code.
- *Bot Protection.* Bad bots can perform content scraping, tie up system resources, perform account brute forcing and other harmful actions. Our solution monitors web application and API traffic for automated bot activity, allowing customers to automatically block malicious bot-generated web requests.
- *API Protection.* Attackers often target sensitive APIs, attempting to validate stolen credit cards, perform e-commerce gift card fraud or obtain patient healthcare records. We help customers stop API abuse by enabling them to monitor for unexpected values and parameters submitted to API endpoints, and block unauthorized requests.
- *ATO Protection.* Account takeover occurs ("ATO") when attackers use authentication credentials to take over legitimate user accounts. Attackers test stolen credentials in an automated manner called "credential stuffing." Our Account Takeover Protection empowers customers to automatically block and alert on credential stuffing attacks.
- *Cloud DDoS.* Our Cloud DDoS protection is an always-on service that provides immediate protection from network and application layer attacks, so web apps and APIs are always available and performant.
- *Advanced Rate Limiting.* Advanced Rate Limiting enables customers to stop malicious and anomalous high volume web requests and reduce resource consumption while allowing legitimate traffic through to application and API endpoints—doing so means companies can provide a superior customer experience that scales to meet increasing demand.

Edge Applications

- *Load Balancer.* Our Layer 7 load balancer manages HTTP/HTTPS requests to a customer's origin using granular content-aware routing decisions. We allow customers to manage traffic across multiple IaaS providers, data centers, and hybrid clouds. We also provide improved performance and cost savings over ADCs, especially during a spike or surge in traffic.
- *Image Optimizer.* We offer a real-time image manipulation and delivery service and store transformations at the edge. When an image is requested, we resize it, adjust quality, crop/trim, change orientations, convert formats, and more, all on demand. Transforming images at the edge eliminates latency and reduces traffic to a customer's origin servers, allowing them to save on infrastructure and egress costs.

Video on Demand

- Our edge cloud platform is designed to cache and rapidly deliver both frequently and infrequently requested on-demand videos. We significantly reduce the load on a customer's origin servers while accelerating time to first frame. Our on-the-fly-packaging feature facilitates immediate playback, enhancing viewer experiences across multiple devices and platforms.

Managed Edge Delivery

- Our managed delivery service provides customers with maximum flexibility and control. We deploy our edge cloud platform on dedicated POPs within a customer's private network, at locations of their choosing. This service can be used exclusively, or as part of a hybrid, multi-CDN strategy.

Partner Ecosystem

Our partner ecosystem consists of a wide range of companies who sell, service, package and build edge applications to integrate with our platform. Our program provides partners with the flexibility to accommodate different go-to-market models and allows each partner to customize their offerings to provide their own differentiated value. This ecosystem consists of companies who build edge applications to integrate with our platform, enterprise resellers and security integration providers, 5G and IOT platforms, video and streaming providers, cloud service providers, logging and analytics providers, as well as JAMStack and PaaS providers. Our partners are all looking to extend the power of our edge cloud platform to their customers.

Edge Application Partners

Our edge cloud platform exposes blocks of code that allow trusted partners to develop real-time analysis and enforcement applications. Building out a massive edge presence is beyond the financial and technical capabilities of all but a handful of companies. By opening our platform to third parties, we allow these partners to focus on building new and innovative edge applications, without the capital outlay and complexity of doing it themselves. It opens up new markets and business models for them.

Enterprise Resellers & Security Integration Partners

Our acquisition of Signal Sciences welcomed new enterprise resellers and integration partners into our partner ecosystem. Enterprise resellers work with our sales and presales teams to scale sales cycle support. This helps expand our worldwide network of partners dedicated to protecting customer's business initiatives like DevOps and cloud adoption. We have recently expanded the reach and breadth of these partners to include cross-selling Fastly and security products and will increase our program's global expansion. Signal Sciences also seamlessly integrates with a number of technology partners to help customers enhance their workflows, empower DevOps processes, increase their security visibility, and drive operational efficiencies. Examples of these integration partnerships include VMware (Tanzu), Palo Alto Networks, Cisco, Datadog, Citrix, PagerDuty, Okta and more.

Cloud Service Provider Partners

We integrate with major cloud providers to enhance their services and create solutions that are powerful, scalable, and secure. We have exclusive Private Network Interconnects (PNIs) and peering arrangements with key cloud providers, such as Google Cloud Platform, Microsoft Azure, Amazon Web Services and others, to eliminate or minimize egress fees, enhance security, and improve overall performance. We can help customers on their digital transformation journeys with seamless cloud migrations, meaning zero downtime for their business, or provide a seamless user experience for customers deploying a multi-cloud strategy. Recently, we announced our availability on the Google Cloud Marketplace and AWS Marketplace, which can help eliminate the need for customers to have separate billing arrangements and makes Fastly services eligible for Google Cloud Platform and AWS committed spends.

Logging and Analytics Partners

Logging and analytics partners integrate with our edge cloud platform to deliver enhanced functionality to our joint customers. Our logging feature provides insights into web and mobile requests and response, such as slow or missing URLs, most requested URLs, site performance by region, and much more. Our statistics provide insights into things like percentage of requests per second, request misses, errors, latency, traffic spikes, and global traffic profiles. Both logs and statistics can be streamed in real time to our logging and analytics partners. This empowers our joint customers to monitor performance, troubleshoot issues as they occur, and view this data alongside other metrics in consolidated dashboards. Logging and analytics partners include the following:

- *Google.* A tight integration with Google Cloud Platform allows real-time logs to be streamed to any Google Cloud Platform big data service, including Google Cloud Storage, BigQuery, and Bigtable;
- *Microsoft.* Our integration with Microsoft Azure allows real-time logs to be streamed to both Azure Blob Storage and Kusto;
- *Datadog.* Datadog uses our API to pull in real-time stats and analytics for display in their dashboard;
- *Looker.* Looker combines log data with other data sources in BigQuery, such as Google Analytics, Google Ads data, or security and firewall data. Customers can then run multiple queries against these data sets and present findings in Looker dashboards;
- *Sumo Logic.* Sumo Logic integrates with our platform to offer more granular logging data for customers with large-scale analytics. Customers gain real-time insights into slow URLs, missing or most requested URLs, site performance by region, and more; and

- *Logentries*. Logentries provides a one-click integration with our platform, making it easy for customers to quickly set up real-time logs.

PaaS Partners

PaaS partners integrate our edge cloud platform into their solutions to make it easier for their developers to scale and secure websites.

- *Heroku*. Heroku empowers companies to build, deliver, monitor, and scale applications. Our Heroku add-on lets developers seamlessly integrate their Heroku hosted applications with our edge cloud platform through the click of a button;
- *Magento Commerce*. Magento Commerce, an Adobe company, provides a platform that enables merchants to integrate digital and physical shopping experiences. Our Magento extension lets developers manage their entire content caching strategy from the Magento control panel while maintaining fast, reliable performance; and
- *Drupal and Wordpress*. Drupal and Wordpress are Content Management Systems ("CMS") partners. They provide self-hosted solutions for customers to create and manage all the content on their websites. Our Drupal and Wordpress extensions allow developers to easily configure and manage their content caching strategy from within these CMS dashboards. Several of the large CMS platforms leverage Fastly's products and services within their offerings, ensuring their customers have the best user experience on the web.

Our Culture and Human Capital Resources

Our Values

Technology has the potential to make a radically positive impact on the world, and we aspire to improve human lives through our work. We were founded on strong ethical principles, and have intentionally grown values-first, scaling our workforce, services, customer portfolio, and investment partners purposefully. We are only as good as the company we keep, and this guides our hiring practices as well as the ethics we are committed to upholding as we scale. We believe that as a result of our values, we have been able to identify, attract, engage and retain great people. We want to serve the very best of the internet. We choose to work with customers that we believe have integrity, are trustworthy, and do not promote violence or hate. Our eight core values define who we are and how we choose to grow, hire, train, work, communicate, make decisions, support each other, and serve our customers.



We have a
curious spirit



We **focus** on
our customer



We are
trustworthy



We act
with **passion**



We operate
with **integrity**



We are
competitive



We embrace
transparency



We are
good **people**

Our Strategy

We are dedicated to building a diverse workforce and leadership team that reflects our values and the unique needs of our global customer base. We strive to be a company full of talented, highly effective, kind, honest, passionate, and high-integrity people. We are dependent on our highly qualified employees and executives, and it is crucial that we continue to attract, engage and retain valuable employees, particularly in light of the increase in employee resignations currently taking place throughout the United States as a result of the COVID-19 pandemic, which is commonly referred to as the “great resignation.” We believe in investing in our people and motivating talented individuals with a strong career path and competitive compensation program. Our U.S. support engineers are often hired from code schools, and many code school graduates transition from support into other organizations within the company, championing the customer voice and infusing our teams with a strong, service-focused mindset. Our engineering staff recruits world-class experts in every part of the technology stack that makes up the internet, which inspires great developers to join us. Our compensation program is designed to attract, retain, and motivate highly qualified employees and executives. We use a mix of competitive base salary, equity compensation awards, and other employee benefits.

We are building a global, healthy, safe, and diverse workforce and an inclusive culture that empowers and supports our employees and customers. We onboard all new employees with training programs on our values, certain aspects of our business, and important policies, including our Safe, Welcoming, and Productive Work Environment Policy. Annually thereafter we provide employees with code of conduct and security awareness training, a learning reimbursement program and performance evaluations. Our employee engagement efforts currently include company-wide newsletters, all-hands meetings, and AMA (“ask me anything”) sessions, through which we aim to keep our employees well-informed and to increase transparency. We also use employee engagement surveys to collect employee feedback and assess the effectiveness of our culture, our strategy, and various health and well-being programs.

During the COVID-19 pandemic, we have taken significant steps to protect the health and safety of our workforce. Our offices have remained temporarily closed since March 1, 2020, and we have taken other precautionary measures, such as instituting protocols and guidelines for Fastly-related travel, intended to facilitate social distancing and help minimize the risk of the virus to our employees, our customers, and the communities in which we participate. Throughout the pandemic we have conducted periodic employee pulse surveys in order to get a deeper understanding of what our employees were experiencing and to inform our policies and priorities. We also instituted monthly employee wellness days, provided a monthly internet stipend, and held virtual workshops on topics such as mental health and leading and supporting remote teams.

Employees

As of December 31, 2021, we had a total of 976 employees worldwide and 188 employees located outside of the United States. We have a reputation as an early adopter of the distributed workforce model and this approach has enabled us to recruit highly skilled professionals around the world. Prior to the COVID-19 pandemic, as of December 31, 2019, nearly 40% of our employees were working in a remote-capacity. As of December 31, 2021, 65.8% of our employees worldwide were considered remote, which means they reside in locations where we do not expect to have a Fastly office presence once we reopen. Given our early experience building a distributed workplace culture, we were able to quickly transition to all employees working remotely in response to COVID-19.

Organization

Sales & Marketing

Our go-to-market model initially focused on reaching and serving the needs of developers. We reached developers through working groups, community events, conferences, and word-of-mouth. Our platform was built to empower developers to innovate at their own pace, so our platform is accessible, transparent, and self-service.

The majority of our customers enter into negotiated contracts with us. These contracts typically include specific pricing and a minimum monthly commitment. As developers have expanded their usage of our platform, our relationship has evolved to include business leaders within their organizations. Customers who sign up online can access our self-service pricing matrix which is publicly available.

Our sales and marketing organizations work together closely to cultivate customer relationships with developers and business leaders at enterprises and technology-savvy organizations to drive revenue growth. We have geographically-based sales teams that continue to enhance our value-based selling methodology. Our land and expand sales strategy for enterprise customers has successfully demonstrated our platform's capabilities, and our customer support enables broad adoption of our technology within an organization.

We also offer a trial to developers who sign up for testing and experimentation. We do this in order to strengthen our relationship and reputation within the developer community by providing developers with the ability to familiarize themselves with our platform without first becoming a paying customer. Once signed up, developers can easily access our programmable interface, extensive self-service documentation, and customer support team. Our low-friction trial experience allows developers to validate that our edge platform works for them at no cost or risk.

Research & Development

Our research and development team members are responsible for the design, development, and reliability of all aspects of our edge cloud platform. Continuous improvement and innovation are core to our DNA, and these efforts are baked directly into our service life cycle. Scale, performance, security, and reliability are core functional requirements of everything we build into our platform to serve our customers.

Our philosophy of customer empowerment guides our research processes. Our product managers regularly engage with customers and the developer, DevOps and site reliability engineering communities, as well as our internal stakeholders and subject matter experts, in order to understand customer needs. Our engineering team is comprised of experts with deep experience, who intimately understand customers' technical challenges and build solutions accordingly.

Throughout the strategic, design, and build phases of our product life cycle, our development organization works closely with our product, infrastructure, operations, and compliance teams to design, develop, test, and launch any given solution. We strive for a balance of rapid iteration without compromise on the core functional requirements that our customers expect: scale, performance, security, and reliability.

As of December 31, 2021, we had 321 employees in our research and development group. Our research and development expenses were \$126.9 million in the year ended December 31, 2021.

Infrastructure

Our infrastructure team is responsible for the design, deployment, and maintenance of the servers and network hardware that form the foundation of our mission critical environment in 71 markets as of December 31, 2021. We invest in research into global internet geography to identify optimal colocation site selection, network partner identification, and network-to-network interconnection opportunities. These activities allow us to connect in close proximity to core internet backbones and ISPs, thereby enhancing network performance. We carefully evaluate and test hardware from leading server, network, and component manufacturers to ensure they comply with our workload performance, system efficiency, and mean time-to-repair standards. In our process, we evaluate commodity server and network platforms to avoid vendor lock-in, while optimizing the mix of components in an effort to improve efficiency and optimize our capital expenditures. We intend to grow the number of data center colocation sites as traffic on our network grows and as demands for new markets justify investment.

Trust

We uphold transparency and trustworthiness as company values. Our security, compliance and data governance teams, as well as other departments across the company, continually iterate on our trust programs to better meet growing customer needs, updated regulatory requirements, and the evolving security threat landscape. To help validate the controls that safeguard our platform and the data moving through it, we have expanded our portfolio of security and compliance-related assessments and certifications over time.

Customer Support

We have designed our products and platform to be self-service and require minimal customer support. Customers are automatically covered by our standard support plan as soon as they sign up with us. They can file a ticket with the support team,

access documentation including online FAQs, API references, and configuration guidelines. Our support approach is unique as we have built it with developers in mind. Our first-line support employee typically has an engineering background and is highly technical.

We also provide several options for premier, hands-on support from a team of highly-technical senior support engineers and technical account managers. They act as a single point of contact for our support, product and engineering teams. Our support model is global, with 24/7 coverage and support offices located throughout the United States, EMEA, and Japan.

Partnerships & Strategic Relationships

We believe that building a strong partner ecosystem helps amplify our reach and time-to-market, while providing our customers with enhanced value from our joint offerings. By investing in these partnerships, we hope to cross-sell between the Signal Sciences and Fastly customer bases to increase per customer revenue. In addition, we hope to increase customer satisfaction and retention since developers and decision makers will now get to work with their partner of choice. Our partners and strategic alliances include:

- *Integration Partners*
- *Solutions Partners*
- *Referral and Reseller Partners*
- *Central Cloud Partners*

Competition

Our platform spans several markets from cloud computing and cloud security to CDNs. We segment the competitive landscape into five key categories:

- Legacy CDNs like Akamai, Limelight, EdgeCast (part of Verizon Digital Media), Level3, and Imperva (for security);
- Small business focused CDNs like Cloudflare, StackPath, and Section.io;
- Application and API security vendors like Akamai, Cloudflare, Imperva, Amazon Web Services and F5 (Shape)
- Cloud providers who are starting to offer compute functionality at the edge like Amazon's CloudFront, AWS Lambda, and Google Cloud Platform; and
- Traditional data center and appliance vendors like F5, Citrix, A10 Networks, Cisco, Imperva, Radware, and Arbor, as well as networks that offer a range of on-premise solutions for load balancing, WAF, and DDoS.

The principle competitive factors in our market include:

- Platform scalability and performance;
- Global network coverage;
- Platform reliability and security;
- Ease of integration and programmability;
- Credibility with developers;
- Ability to support modern application development processes;
- Brand awareness, reputation, and trust;

- Strength of our sales and marketing efforts;
- Quality of customer support; and
- Price and network cost savings.

We believe we generally compete favorably with our competitors on the basis of these factors. Our edge cloud platform integrates many of the point products offered by our competitors which is a key differentiator. However, many of our competitors have substantially greater financial and technical resources in addition to larger sales and marketing budgets, broader market distribution, and more mature intellectual property portfolios.

Intellectual Property

We rely on a combination of patent, copyright, trademark, and trade secret laws in the United States and other jurisdictions, as well as license agreements and other contractual protections, to protect our proprietary technology. We also rely on a number of registered and unregistered trademarks to protect our brand.

As of December 31, 2021, in the United States, we had 74 issued patents, which expire between August 2033 and February 2040, 39 patent applications pending for examination, as well as 6 pending provisional applications. As of such date, we also had 20 issued patents and 24 patent applications pending for examination in foreign jurisdictions and 29 Patent Cooperation Treaty patent applications pending for examination, all of which are related to U.S. patents and patent applications. In addition, as of December 31, 2021, we had 16 registered trademarks in the United States.

In addition, we seek to protect our intellectual property rights by requiring our employees and independent contractors involved in development of intellectual property on our behalf to enter into agreements acknowledging that all works or other intellectual property generated or conceived by them on our behalf are our property, and assigning to us any rights, including intellectual property rights, that they may claim or otherwise have in those works or property, to the extent allowable under applicable law.

Despite our efforts to protect our technology and proprietary rights through intellectual property rights, licenses, and other contractual protections, unauthorized parties may still copy or otherwise obtain and use our software and other technology. In addition, we intend to continue to expand our international operations, and effective intellectual property, copyright, trademark, and trade secret protection may be unavailable or limited in foreign countries. Any significant impairment of our intellectual property rights could harm our business or our ability to compete. Further, companies in the communications and technology industries own large numbers of patents, copyrights, and trademarks and frequently threaten litigation, or file suit based on allegations of infringement or other violations of intellectual property rights. We are currently subject to, and expect to face in the future, allegations that we have infringed the intellectual property rights of third parties. From time to time, we also receive demands for indemnification from our customers under the terms of our contracts with them for infringement of a third-party's intellectual property rights.

Legal Proceedings

From time to time, we have been and will continue to be subject to legal proceedings and claims. We are not presently a party to any legal proceedings that, if determined adversely to us, would individually or taken together have a material effect on our business, results of operations, financial condition, or cash flows. We have received, and may in the future continue to receive, claims from third parties asserting, among other things, infringement of their intellectual property rights. Future litigation may be necessary to defend ourselves, our partners, and our customers by determining the scope, enforceability, and validity of third-party proprietary rights, or to establish our proprietary rights. 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.

Please refer to Note 10—Commitments and Contingencies for discussion around our legal proceedings.

Regulatory

We are subject to a number of U.S. federal and state and foreign laws and regulations that involve matters central to our business. These laws and regulations may involve privacy, data protection, intellectual property, competition, consumer

protection, or other subjects. Many of the laws and regulations to which we are subject are still evolving and being tested in courts and could be interpreted in ways that could harm our business. In addition, the application and interpretation of these laws and regulations often are uncertain, particularly in the new and rapidly evolving industry in which we operate. Because global laws and regulations have continued to develop and evolve rapidly, it is possible that we may not be, or may not have been, compliant with each such applicable law or regulation. For a description of the risks we face related to regulatory matters, refer to “Item 1A.—Risk Factors” in this Annual Report on Form 10-K.

Corporate Information

We were initially incorporated under the laws of the State of Delaware in March 2011 under the name SkyCache, Inc. We changed our name to Fastly, Inc. in May 2012. Our principal executive offices are located at 475 Brannan Street, Suite 300, San Francisco, California 94107. Our telephone number is 1-844-432-7859. Our website address is www.fastly.com. The information contained on, or that can be accessed through, our website does not constitute part of this Annual Report on Form 10-K.

We file annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to reports filed or furnished pursuant to Sections 13(a), 14 and 15(d) of the Exchange Act. The SEC maintains a website at <https://www.sec.gov> that contains reports, and other information regarding us and other companies that file materials with the SEC electronically. Copies of our reports on Forms 10-K, Forms 10-Q, and Forms 8-K, may be obtained, free of charge, electronically through our investor relations website at <https://fastly.com/investors> as soon as reasonably practicable after we file such material with, or furnish such material to, the SEC.

Item 1A. Risk Factors

Investing in our Class A common stock involves a high degree of risk. Investors should carefully consider the risks and uncertainties described below, together with all of the other information contained in this Annual Report on Form 10-K, including the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes, before deciding to invest in our Class A common stock. Unless otherwise indicated, references to our business being harmed in these risk factors will include harm to our business, reputation, customer growth, results of operations, financial condition, or prospects. Any of these events could cause the trading price of our Class A common stock to decline, which would cause our stockholders to lose all or part of their investment. Our business, results of operations, financial condition, or prospects could also be harmed by risks and uncertainties not currently known to us or that we currently do not believe are material.

Risks Related to Our Business, Industry and Technology

If our platform fails to perform properly due to defects, interruptions, outages, delays in performance, or similar problems, and if we fail to develop enhancements to resolve any defect, interruption, delay, or other problems, we could lose customers, become subject to service performance or warranty claims or incur significant costs.

Our operations are dependent upon our ability to prevent system interruption. The applications underlying our edge cloud computing platform are inherently complex and may contain material defects or errors, which may cause disruptions in availability or other performance problems. We have from time to time found defects and errors in our platform and may discover additional defects or errors in the future that could result in data unavailability, unauthorized access to, loss, corruption, or other harm to our customers' data. These defects or errors could also be found in third-party applications or open source software on which we rely. We may not be able to detect and correct defects or errors before implementing our products. Consequently, we or our customers may discover defects or errors after our products have been deployed.

We currently serve our customers from our POPs located around the world. Our customers need to be able to access our platform at any time, without interruption or degradation of performance. However, we have not developed redundancies for all aspects of our platform. We depend, in part, on our third-party facility providers' ability to protect these facilities against damage or interruption from natural disasters, power or telecommunications failures, criminal acts, public health issues, such as the COVID-19 pandemic, and similar events. In some cases, third-party cloud providers run their own platforms that we access, and we are, therefore, vulnerable to their service interruptions. In the event that there are any defects or errors in software, failures of hardware, damages to a facility, or misconfigurations of any of our services, we may have to divert resources away from other planned work, could experience lengthy interruptions in our platform, and also incur delays and additional expenses in arranging new facilities and services. Our customers may choose to divert their traffic away from our platform as a result of interruptions or delays. Disaster recovery arrangements, including the existence of redundant data centers that are designed to become active during certain lapses of service, may not function as intended, and any disruptions to our service could harm our business.

We design our system infrastructure and procure and own or lease the computer hardware used for our platform. Design and mechanical errors, spikes in usage volume, and failure to follow system protocols and procedures could cause our systems to fail, resulting in interruptions on our platform. Moreover, we have experienced and may in the future experience system failures or interruptions in our platform as a result of human error. For example, in January 2021, an undiscovered bug in a software update caused a platform interruption that affected many of our customers, resulting in service level agreement claims. In addition, on June 8, 2021, we experienced a global platform outage due to an undiscovered software bug caused by human error. The outage was triggered by a valid customer configuration change and has resulted in customers reducing or removing traffic from our platform and service level agreement claims. While these customers have returned traffic to our platform, not all customer traffic has returned to pre-outage levels. Any interruptions or delays in our platform, whether caused by our products or our data centers, third-party error, our own error, natural disasters, the effects of climate change (such as drought, flooding, wildfires, increased storm severity, and sea level rise), or security breaches, or whether accidental or willful, could harm our relationships with customers, reduce customers' usage of our platform, cause our revenue to decrease and our expenses to increase, and divert resources away from product development. Also, in the event of damage or interruption, our insurance policies may not adequately compensate us for any losses that we may incur. These factors in turn could further

reduce our revenue, subject us to liability and cause us to issue service credits or cause customers to fail to renew their customer contracts, any of which could harm our business.

The occurrence of any defects, errors, disruptions in service, failures involving redundant data centers, or other performance problems, interruptions, or delays with our platform, whether in connection with the day-to-day operations or otherwise, could result in:

- loss of customers;
- reduced customer usage of our platforms;
- lost or delayed market acceptance and sales of our products, or the failure to launch products or features on anticipated timelines;
- delays in payment to us by customers;
- injury to our reputation and brand;
- governmental inquiry or oversight;
- legal claims, including warranty and service level agreement claims, against us; or
- diversion of our resources, including through increased service and warranty expenses or financial concessions, and increased insurance costs.

The costs incurred in correcting any material defects, errors, or other performance problems in our platform may be substantial and could harm our business.

If we are unable to attract new customers, in particular, enterprise customers, and to have existing enterprise customers continue and increase their use of our platform, our business will likely be harmed.

To grow our business, we must continue to attract new customers, in particular, enterprise customers and generate revenue from those new customers. To do so, we must successfully convince potential customers of the benefits and the value of our platform. This may require significant and costly sales efforts that are targeted at larger enterprises and senior management of these potential customers. Sales to enterprise customers may involve longer sales cycles as a result of customers requiring considerable time to evaluate our platform, requiring participation in a competitive purchasing process, having more formal processes for approval of purchases, and more complex requirements. These factors significantly impact our ability to add new customers and increase the time, resources, and sophistication required to do so. In addition, numerous other factors, some of which are out of our control, may now or in the future impact our ability to acquire new customers, including potential customers' commitments to other providers, real or perceived costs of switching to our platform, our failure to expand, retain, and motivate our sales and marketing personnel, our failure to develop or expand relationships with potential customers and channel partners, failure by us to help our customers to successfully deploy our platform, negative media or industry or financial analyst commentary regarding us or our solutions, litigation, and deteriorating general economic conditions. If we fail to attract new customers, particularly enterprise customers, as a result of these and other factors our business will likely be harmed.

In addition, our ability to grow and generate incremental revenue depends on our ability to maintain and grow our relationships with our existing enterprise customers so that they continue and increase their usage of our platform. If these customers do not maintain and increase their usage of our platform, our revenue may decline and our results of operations will likely be harmed.

We charge our customers based on the usage of our platform. Most of our customers, including some of our largest enterprise customers, do not have long-term contractual financial commitments to us. In addition, most of our current customer

contracts are only one year in duration and these customers may not use our platform in a subsequent year. In order for us to maintain or improve our results of operations, it is important that our customers, in particular, our enterprise customers, use our platform in excess of their commitment levels, if any, and continue to use our platform on the same or more favorable terms. Our ability to retain our largest customers and expand their usage could be impaired for a variety of reasons, including customer budget constraints, customer satisfaction, changes in our customers' underlying businesses, changes in the type and size of our customers, pricing changes, competitive conditions, the acquisition of our customers by other companies, governmental actions, or the possibility thereof, and general economic conditions. Because many of our largest customers' minimum usage commitments for our platform are relatively low compared to their expected usage, it can be easy for certain customers to quickly reallocate usage or switch from our platform to an alternative platform altogether. In addition, they may reduce or cease their use of our products at any time without penalty or termination charges, even after they have expanded usage in prior periods.

We base our decisions about expense levels and investments on estimates of our future revenue and anticipated rate of growth. Many of our expenses are fixed cost in nature for some minimum amount of time, such as colocation and bandwidth, so if we do experience slower usage growth on our platform it may not be possible to reduce costs in a timely manner or without the payment of fees to exit certain obligations early. If any of these events were to occur, our business may be harmed.

In addition, many of our customers have negotiated and may continue to negotiate lower rates for their usage in exchange for an agreement to renew, expand their usage in the future, or adopt new products. As a result, in certain cases, even though customers have not reduced their usage of our platform, the revenue we derive from that usage has decreased. If our usage or revenue fall significantly below the expectations of the public market, securities analysts, or investors, our business would be harmed, which could cause our stock price to decline.

Our future success also depends in part on our ability to expand our existing customer relationships, in particular, with enterprise customers, by increasing their usage of our platform and selling them additional products. The rate at which our customers increase their usage of our platform and purchase products from us depends on a number of factors, including our ability to grow our platform and maintain the security and availability of it, develop and deliver new features and products, maintain customer satisfaction, general economic conditions and pricing and services offered by our competitors. If our efforts to increase usage of our platform by, or sell additional products to, our enterprise customers are not successful, our business would be harmed. In addition, even if our largest customers increase their usage of our platform, we cannot guarantee that they will maintain those usage levels for any meaningful period of time. In addition, because many of our products endeavor to deliver increased efficiency and functionality, the successful sale of an additional product to an existing customer could result in a reduction of the customer's overall usage of our platform.

If we fail to forecast our revenue accurately, or if we fail to manage our expenditures, our operating results could be adversely affected.

We cannot accurately predict customers' usage or renewal rates given the diversity of our customer base across industries, geographies and size, and ability of customers to allocate usage, among other factors. Accordingly, we may be unable to accurately forecast our revenues notwithstanding our substantial investments in sales and marketing, infrastructure, and research and development in anticipation of growth in our business. If we do not realize returns on these investments in our growth, our results of operations could differ materially from our forecasts, which would adversely affect our results of operations and could disappoint analysts and investors, causing our stock price to decline.

We receive a substantial portion of our revenues from a limited number of customers from a limited number of industries, and the loss of, or a significant reduction in usage by, one or more of our major customers would result in lower revenues and could harm our business.

Our future success is dependent on establishing and maintaining successful relationships with a diverse set of customers. We currently receive a substantial portion of our revenues from a limited number of customers and from a limited number of industries, such as media and entertainment. For the year ended December 31, 2021, our top ten customers accounted for approximately 34% of our revenue and our top five customers accounted for approximately 22% of our revenue. It is likely that we will continue to be dependent upon a limited number of customers for a significant portion of our revenues for the foreseeable future and, in some cases, the portion of our revenues attributable to individual customers may increase in the future. In addition, changes to our customers' business may cause our revenues attributable to individual customers to increase, including any impact from merger and acquisition activities, internal business reorganizations leading to operational and

decision making changes, and corporate structure changes such as subsidiary consolidation and reorganization that may arise in the future. The loss of one or more key customers or a reduction in usage by any major customers would reduce our revenues. For example, on June 8, 2021, we experienced a global platform outage due to an undiscovered software bug caused by human error. The outage was triggered by a valid customer configuration change and resulted in customers, including some of our largest customers, reducing or removing traffic from our platform and service level agreement claims. While these customers have returned traffic to our platform, not all customer traffic has returned to pre-outage levels. If we fail to maintain existing customers or develop relationships with new customers and across different industries, our business would be harmed.

Component delays, shortages or price increases could interrupt our ability to complete the construction of our servers to meet the usage needs of our customers.

Our business is dependent upon the timely supply of certain parts and components to construct our servers. We rely on a limited number of suppliers for several components of the equipment we use to operate our network and provide products to our customers. Our reliance on these suppliers exposes us to risks, including reduced control over production costs and constraints based on the then current availability, terms, and pricing of these components. The ongoing COVID-19 pandemic has resulted, and we expect will continue to result, in disruptions and delays for these components and the delivery and installation of such components at our co-location facilities, in addition to pricing increases. For example, throughout 2021, a global shortage of microchips has resulted in supply constraints for a number of electronics firms, including manufacturers that supply the components to construct our servers. If our supply of certain components is disrupted or delayed, there can be no assurance that we will be able to obtain adequate replacements for the existing components or that supplies will be available on terms and prices that are favorable to us, if at all. Any disruption or delay in the supply of our hardware components may limit capacity expansion or replacement of defective or obsolete equipment, or cause other constraints on our operations that could damage our customer relationships and harm our business.

Our limited operating history and our history of operating losses makes it difficult to evaluate our current business and prospects and may increase the risks associated with your investment.

We were founded in 2011 and have experienced net losses and negative cash flows from operations since inception. Our limited operating history makes it difficult to evaluate our current business and our future prospects, including our ability to plan for and model future growth. We have encountered and will continue to encounter risks and difficulties frequently experienced by growth companies in constantly evolving industries, including companies in the technology sector, including the risks described in this report. If we do not address these risks successfully, our business may be harmed.

We generated a net loss of \$222.7 million for the year ended December 31, 2021, and as of December 31, 2021, we had an accumulated deficit of \$510.9 million. We will need to generate and sustain increased revenue levels and manage costs in future periods in order to become profitable; even if we achieve profitability, we may not be able to maintain or increase our level of profitability. We intend to continue to expend significant funds to support further growth and further develop our platform, including expanding the functionality of our platform, expanding our technology infrastructure and business systems to meet the needs of our customers, expanding our direct sales force and partner ecosystem, increasing our marketing activities, and growing our international operations. We will also face increased compliance costs associated with growth, expansion of our customer base, and the costs of being a public company. Our efforts to grow our business may be costlier than we expect, and we may not be able to increase our revenue enough to offset our increased operating expenses. We may incur significant losses in the future for a number of reasons, including the other risks described herein, and unforeseen expenses, difficulties, complications and delays, and other unknown events. If we are unable to achieve and sustain profitability, our business may be harmed.

Further, we have limited historical financial data and operate in a rapidly evolving market. As such, any predictions about our future revenue and expenses may not be as accurate as they would be if we had a longer operating history or operated in a more predictable market.

If our security measures, or those maintained on our behalf, are compromised now, or in the future, or the security, confidentiality, integrity or availability of our information technology, software, services, networks, communications or data is compromised, limited or fails, our business could experience a materially adverse impact, including significant costs and disruptions that could harm our business, financial results, and reputation.

Our business is dependent on providing our customers with fast, efficient, and reliable distribution of applications and content over the internet. We transmit and store our customers' information, data, and encryption keys as well as our own; customer information and data may include personally identifiable data of and about their end-users. Maintaining the security and availability of our platform, network, and internal IT systems and the security of information we hold on behalf of our customers is a critical issue for us and our customers, and we may expend significant resources, fundamentally change our business activities and practices, or modify our operations in an effort to protect against security incidents and to mitigate, detect, and remediate actual and potential vulnerabilities. Attacks on our customers and our own network are frequent and take a variety of forms, including DDoS attacks, infrastructure attacks, botnets, malicious file attacks, cross-site scripting, credential abuse, ransomware, bugs, viruses, worms, and malicious software programs. For example, during 2021 we experienced DDoS attacks of increased size and severity that caused us to invest resources into improving our systems, and we expect to continue to be subject to DDoS and other forms of attacks in the future, particularly as they have become more prevalent in our industry. Malicious actors can attempt to fraudulently induce employees or suppliers to disclose sensitive information through spamming, phishing, or other tactics. Similarly, supply chain attacks have increased in frequency and severity, and we cannot guarantee that third parties and infrastructure in our supply chain have not been compromised or that they do not contain exploitable defects or bugs that could result in a breach of or disruption to our platform, systems and networks or the systems and networks of third parties that support us and our services. For example, in December 2021, the Apache Software Foundation publicly disclosed a remote code execution vulnerability in its Log4j 2 product (Log4j), an open-source component widely used in Java-based software applications to log and track error messages, which affected large amounts of systems worldwide. While we have identified and remediated all known Log4j vulnerabilities in our systems, we expect to continue to encounter vulnerabilities and potential attacks related to open source libraries integrated in our systems. Ransomware attacks, including by organized criminal threat actors, nation-states, and nation-state-supported actors, are also becoming increasingly prevalent and severe and can lead to significant interruptions in our operations, loss of data and income, reputational harm, and diversion of funds. Extortion payments may alleviate the negative impact of a ransomware attack, but we may be unwilling to make such payments, or unable to make such payments due to, for example, applicable laws or regulations prohibiting such payments. In addition, unauthorized parties may attempt to gain physical access to our facilities in order to infiltrate our information systems. We have in the past been subject to cyber-attacks from third parties, including parties who we believe are sponsored by government actors. Since our customers share our multi-tenant architecture, an attack on any one of our customers could have a negative effect on other customers. These attacks have significantly increased the bandwidth used on our platform and have strained our network. If attacks like these were to occur in the future and if we do not have the systems and processes in place to respond to them, our business could be harmed. Future or past business transactions (such as acquisitions or integrations) could expose us to additional cybersecurity risks and vulnerabilities, as our systems could be negatively affected by vulnerabilities present in acquired or integrated entities' systems and technologies. Additionally, the COVID-19 pandemic and our remote workforce poses increased risks to our information technology and network, as more of our employees work from home, utilizing network connections outside our premises.

Security incidents, whether as a result of third-party action, employee or customer error, technology impairment or failure, malfeasance or criminal activity, or hostile state actors, could result in unauthorized access to, or loss or unauthorized disclosure of, customer information or data, litigation, indemnity obligations, and other possible liabilities. Incidents involving customer information have in the past resulted in pricing and other concessions, decreased customer usage and terminations by affected customers, and similar security incidents could occur in the future that result in pricing concessions, indemnity obligations, and other possible liabilities related to such unauthorized access, loss or disclosure, including litigation. Further, certain of our insurance policies and the laws of some states may limit or prohibit insurance coverage for punitive or certain other types of damages or liability arising from gross negligence or intentional misconduct of us and our suppliers and we cannot assure you that we are adequately insured against the risks that we face.

In recent years, cyber-attacks have increased in size, sophistication, and complexity, increasing exposure for our customers and us. In addition, as we expand our emphasis on selling security-related products, we may become a more attractive target for attacks on our infrastructure intended to destabilize, overwhelm, or shut down our platform. For example, we have had security incidents in the past that have tested the limits of our infrastructure and impacted the performance of our platform. The costs to us to avoid or alleviate cyber or other security problems and vulnerabilities are significant. However, our efforts to address these problems and vulnerabilities may not be successful. Any actual or perceived significant breach of our security measures could:

- lead to the dissemination of proprietary information or sensitive, personal, or confidential data about us, our employees, or our customers—including personally identifiable information of individuals involved with our customers and their end-users;

- lead to interruptions or degradation of performance in our platform;
- threaten our ability to provide our customers with access to our platform;
- generate negative publicity about us;
- result in litigation and increased legal liability or fines; or
- lead to governmental inquiry or oversight.

Additionally, applicable data protection laws, privacy policies and data protection obligations may require us to notify relevant stakeholders of security incidents, including affected individuals, customers, regulators and credit reporting agencies. Such disclosures are costly, and the disclosures or the failure to comply with such requirements, could lead to materially adverse impacts, including, without limitation, government enforcement (for example, investigations, fines penalties, audits, and inspections), additional reporting requirements and/or oversight, restrictions on processing sensitive information (including personal information), litigation (including class claims), indemnification obligations, monetary fund diversions, interruptions in our operations (including availability of data), financial loss, negative publicity, a loss of customer confidence in our services, breach of contract claims, and other similar harms.

The occurrence, or perceived occurrence, of any of these events could harm our business or damage our brand and reputation, lead to customer credits, loss of customers, higher expenses, and possibly impede our present and future success in retaining and attracting new customers. A successful security breach or attack on our infrastructure would be damaging to our reputation and could harm our business.

Additionally, our contracts may not contain limitations of liability, and even where they do, there can be no assurance that limitations of liability in our contracts are sufficient to protect us from liabilities, damages, or claims related to our privacy and data protection obligations. We also cannot be sure that our insurance coverage will be adequate or sufficient to protect us from or to mitigate liabilities arising out of our privacy and security practices, that such coverage will continue to be available on commercially reasonable terms or at all, or that such coverage will pay future claims.

Similar security risks exist with respect to our business partners and the third-party vendors that we rely on for aspects of our information technology support services and administrative functions. As a result, we are subject to the risk that cyber-attacks on our business partners and third-party vendors may adversely affect our business even if an attack or breach does not directly impact our systems. Our ability to monitor these business partners' and third-party vendors' security measures is limited, and these business partners and third-party vendors may not have adequate security measures in place. It is also possible that security breaches sustained by our competitors could result in negative publicity for our entire industry that indirectly harms our reputation and diminishes demand for our platform.

If we fail to adapt and respond effectively to rapidly changing technology, evolving industry standards, changing regulations, and changing customer needs, requirements, or preferences, our products may become less competitive.

The market in which we compete is relatively new and subject to rapid technological change, evolving industry standards and regulatory changes, as well as changing customer needs, requirements, and preferences. The success of our business will depend, in part, on our ability to adapt and respond effectively to these changes on a timely basis. If we are unable to develop and sell new products that satisfy our customers and provide enhancements, new features, and capabilities to our platform that keep pace with rapid technological and industry change, our revenue and operating results could be adversely affected. If new technologies emerge that enable large internet platform companies to utilize their own data centers and implement delivery approaches that limit or eliminate reliance on third-party providers like us, or that enable our competitors to deliver competitive products and applications at lower prices, more efficiently, more conveniently, or more securely, such technologies could adversely impact our ability to compete. If our platform does not allow us or our customers to comply with the latest regulatory requirements, our existing customers may decrease their usage on our platform and new customers will be less likely to adopt our platform.

Our platform must also integrate with a variety of network, hardware, mobile, and software platforms and technologies, and we need to continuously modify and enhance our products and platform capabilities to adapt to changes and innovation in

these technologies. If developers widely adopt new software platforms, we would have to attempt to develop new versions of our products and enhance our platform's capabilities to work with those new platforms. These development efforts may require significant engineering, marketing, and sales resources, all of which would affect our business and operating results. Any failure of our platform's capabilities to operate effectively with future infrastructure platforms, technologies, and software platforms could reduce the demand for our platform. If we are unable to respond to these changes in a cost-effective manner, our products may become less marketable and less competitive or obsolete, and our business may be harmed.

Moreover, our platform is highly technical and complex and, for example, our delivery products rely on knowledge of the Varnish Configuration Language ("VCL") to utilize many features of this platform. Potential developers may be unfamiliar or opposed to working with VCL and therefore decide to not adopt our platform, which may harm our business.

Failure to effectively develop and expand our marketing and sales capabilities could harm our ability to increase our customer base and achieve broader market acceptance of our platform.

We have historically benefited from word-of-mouth and other organic marketing to attract new customers. Through this word-of-mouth marketing, we have been able to build our brand with relatively low marketing and sales costs. This strategy has allowed us to build a substantial customer base and community of users who use our products and act as advocates for our brand and our platform, often within their own corporate organizations. However, our ability to further increase our customer base and achieve broader market acceptance of our edge cloud platform will significantly depend on our ability to expand our marketing and sales operations. We plan to continue expanding our sales force and strategic partners, both domestically and internationally. We also plan to continue to dedicate significant resources to sales, marketing, and demand-generation programs, including various online marketing activities as well as targeted account-based advertising. The effectiveness of our targeted account-based advertising has varied over time and may vary in the future. All of these efforts will require us to invest significant financial and other resources and if they fail to attract additional customers our business will be harmed. We have also used a strategy of offering free trial versions of our platform in order to strengthen our relationship and reputation within the developer community by providing these developers with the ability to familiarize themselves with our platform without first becoming a paying customer. However, these developers may not perceive value in the additional benefits and services we offer beyond the free trial versions of our platform and may choose not to pay for those additional benefits. Moreover, some existing paying customers may choose to convert to the free version of our platform. Most trial accounts do not convert to paid versions of our platform, and to date, only a few users who have converted to paying customers have gone on to generate meaningful revenue. If our other lead generation methods do not result in broader market acceptance of our platform and the users of trial versions of our platform do not become, or are unable to convince their organizations to become, paying customers, or if paying customers choose to convert to the free versions of our platform, we will not realize the intended benefits of this strategy, and our business will be harmed.

We believe that there is significant competition for sales personnel, including sales representatives, sales managers, and sales engineers, with the skills and technical knowledge that we require. Our ability to achieve significant revenue growth will depend, in large part, on our success in recruiting, training, and retaining sufficient numbers of sales personnel to support our growth. New hires require significant training and may take significant time before they achieve full productivity. Our recent hires may not become productive as quickly as we expect, if at all, and we may be unable to hire or retain sufficient numbers of qualified individuals in the markets where we do business or plan to do business. In addition, particularly if we continue to grow rapidly, new members of our sales force will have relatively little experience working with us, our platform, and our business model. If we are unable to hire and train sufficient numbers of effective sales personnel, our sales personnel do not reach significant levels of productivity in a timely manner, or our sales personnel are not successful in acquiring new customers or expanding usage by existing customers, our business will be harmed.

The markets in which we participate are competitive, and if we do not compete effectively, our business will be harmed.

The market for cloud computing platforms, particularly enterprise grade products, is highly fragmented, competitive, and constantly evolving. With the introduction of new technologies and market entrants, we expect that the competitive environment in which we compete will remain intense going forward. Legacy CDNs, such as Akamai, Limelight, EdgeCast (part of Verizon Digital Media), Level3, and Imperva (for security), and small business-focused CDNs, such as Cloudflare, StackPath, and Section.io, offer products that compete with ours. We also compete with application and API security vendors like Akamai, Cloudflare, Imperva, Amazon Web Services and F5 (Shape), with cloud providers who are starting to offer compute functionality at the edge like Amazon's CloudFront, AWS Lambda, and Google Cloud Platform, as well as traditional

data center and appliance vendors like F5, Citrix, A10 Networks, Cisco, Imperva, Radware, and Arbor Networks, who offer a range of on-premise solutions for load balancing, WAF, and DDoS. Some of our competitors have made or may make acquisitions or may enter into partnerships or other strategic relationships that may provide more comprehensive offerings than they individually had offered. Such acquisitions or partnerships may help competitors achieve greater economies of scale than us. In addition, new entrants not currently considered to be competitors may enter the market through acquisitions, partnerships, or strategic relationships. We compete on the basis of a number of factors, including:

- our platform’s functionality, scalability, performance, ease of use, reliability, security availability, and cost effectiveness relative to that of our competitors’ products and services;
- our global network coverage and availability;
- our ability to utilize new and proprietary technologies to offer services and features previously not available in the marketplace;
- our ability to identify new markets, applications, and technologies;
- our ability to attract and retain customers;
- our brand, reputation, and trustworthiness;
- our credibility with developers;
- the quality of our customer support;
- our ability to recruit software engineers and sales and marketing personnel;
- our ability to protect our intellectual property; and
- our ability to identify opportunities for acquisitions and strategic relationships and successfully execute on them, including our acquisition of Signal Sciences.

We face substantial competition from legacy CDNs, small business-focused CDNs, cloud providers, traditional data center, and appliance vendors. In addition, existing and potential customers may not use our platform, or may limit their use, because they pursue a “do-it-yourself” approach by putting in place equipment, software, and other technology products for content and application delivery within their internal systems; enter into relationships directly with network providers instead of relying on an overlay network like ours; or implement multi-vendor policies to reduce reliance on external providers like us.

Our competitors vary in size and in the breadth and scope of the products and services offered. Many of our competitors and potential competitors have greater name recognition, longer operating histories, more established customer relationships and installed customer bases, larger marketing budgets, and greater resources than we do. While some of our competitors provide a platform with applications to support one or more use cases, many others provide point-solutions that address a single use case. Other potential competitors not currently offering competitive applications may expand their product offerings, and our current customers may develop their own products or features, to compete with our offerings. Our competitors may be able to respond more quickly and effectively than we can to new or changing opportunities, technologies, standards, and customer requirements. An existing competitor or new entrant could introduce new technology that reduces demand for our platform. In addition to application and technology competition, we face pricing competition. Some of our competitors offer their applications or services at a lower price, which has resulted in pricing pressures. Some of our larger competitors have the operating flexibility to bundle competing applications and services with other offerings, including offering them at a lower price or for no additional cost to customers as part of a larger sale of other products. For all of these reasons, we may not be able to compete successfully and competition could result in the failure of our platform to achieve or maintain market acceptance, the market for our edge cloud platform may grow more slowly than we anticipate, any of which could harm our business.

If we fail to maintain and enhance our brand, our ability to expand our customer base will be impaired and our business, results of operations and financial condition may suffer.

We believe that maintaining and enhancing our brand is important to continued market acceptance of our existing and future products, attracting new customers, and retaining existing customers. We also believe that the importance of brand recognition will increase as competition in our market increases. Successfully maintaining and enhancing our brand will depend largely on the effectiveness of our marketing efforts, our ability to provide reliable products that continue to meet the needs of our customers at competitive prices, our ability to maintain our customers' trust, our ability to continue to develop new functionality and products, and our ability to successfully differentiate our platform from competitive products and services. Additionally, our brand and reputation may be affected if customers do not have a positive experience with our partners' services. Our brand promotion activities may not generate customer awareness or yield increased revenue, and even if they do, any increased revenue may not offset the expenses we incurred in building our brand. If we fail to successfully promote and maintain our brand, our business may be harmed.

Acquisitions, strategic investments, partnerships, or alliances could be difficult to identify and integrate, divert the attention of management, disrupt our business, and dilute stockholder value.

On October 1, 2020, we completed the acquisition of Signal Sciences. We may in the future seek to acquire or invest in businesses, products, or technologies that we believe could complement or expand our platform, enhance our technical capabilities, or otherwise offer growth opportunities. The pursuit of potential acquisitions may divert the attention of management and cause us to incur various expenses in identifying, investigating, and pursuing acquisitions, whether or not such acquisitions are completed. In addition, we have limited experience in acquiring other businesses and we may not successfully identify desirable acquisition targets or, when we acquire additional businesses, such as Signal Sciences, we may not be able to integrate them effectively following the acquisition. Acquisitions could also result in dilutive issuances of equity securities or the incurrence of debt, which could adversely affect our operating results, may cause unfavorable accounting treatment, may expose us to claims and disputes by third parties, including intellectual property claims, and may not generate sufficient financial returns to offset additional costs and expenses related to the acquisitions. We may also incur significant, and sometimes unanticipated, costs in connection with these acquisitions or in integration with our business. In addition, if an acquired business, such as Signal Sciences, fails to meet our expectations or we do not realize sufficient value, our business may be harmed.

Further, it is possible that there could be a loss of our or any acquired company's key employees and customers, disruption of either company's or both companies' ongoing businesses or unexpected issues, higher than expected costs and an overall post-completion process that takes longer than originally anticipated. Specifically, the following issues, among others, must be addressed in combining any company's, including Signal Sciences', operations with ours in order to realize the anticipated benefits of the acquisition so the combined company performs as the parties hope:

- combining the companies' corporate functions;
- combining their business with our business in a manner that permits us to achieve the synergies anticipated to result from the acquisition, the failure of which would result in the anticipated benefits of the acquisition not being realized in the time frame currently anticipated or at all;
- maintaining existing and new agreements with customers, service providers, and vendors;
- determining whether and how to address possible differences in corporate cultures, management philosophies and strategies relating to channels, resellers, and partners;
- integrating the companies' administrative and information technology infrastructure;
- developing products and technology that allow value to be unlocked in the future; and
- evaluating and forecasting the financial impact of the acquisition transaction, including accounting impacts.

Failure to address any of the above listed issues could have a material adverse effect on our business, results of operations and financial position. In addition, at times the attention of certain members of our management and resources may be focused on completion of the acquisition and integration planning of the businesses of the two companies and diverted from day to day business operations, which may disrupt our ongoing business and the business of the combined company. For example, certain members of our management team and other personnel have spent significant time on the acquisition and integration of Signal Sciences.

We have previously been and may in the future be involved in class-action lawsuits and other litigation matters that are expensive and time-consuming. If resolved adversely, lawsuits and other litigation matters could seriously harm our business.

We have previously been and may in the future be subject to litigation such as putative class action and shareholder derivative lawsuits brought by stockholders. We anticipate that we will be a target for lawsuits in the future, as we have been in the past. For example, on August 27, 2020 and September 15, 2020, we and certain of our officers were named as defendants in putative securities class action purportedly brought on behalf of holders of our Class A common stock. These two securities class actions were consolidated, and on December 21, 2021, the consolidated class action was voluntarily dismissed with prejudice. On December 28, 2020 and February 2, 2021, certain of our officers and directors were named as defendants in shareholder derivative actions. These two shareholder derivative actions were consolidated, and on January 3, 2022, the consolidated derivative action was voluntarily dismissed without prejudice. Any litigation to which we are a party may result in an onerous or unfavorable judgment that may not be reversed on appeal, or we may decide to settle lawsuits on similarly unfavorable terms. Any such negative outcome could result in payments of substantial monetary damages and accordingly our business could be seriously harmed. The results of lawsuits and claims cannot be predicted with certainty. Regardless of the final outcome, defending these claims, and associated indemnification obligations, are costly and can impose a significant burden on management and employees, and we may receive unfavorable preliminary, interim, or final rulings in the course of litigation, which could seriously harm our business.

Health epidemics, including the ongoing COVID-19 pandemic, have had, and could in the future have, an adverse impact on our business, operations, and the markets and communities in which we, our partners and customers operate.

The ongoing global COVID-19 pandemic has adversely impacted, and may continue to adversely impact, many aspects of our business. As certain of our customers or potential customers experience downturns or uncertainty in their own business operations and revenue resulting from the spread of COVID-19, they have and may continue to decrease or delay their technology spending, request pricing concessions or payment extensions, or seek renegotiation of their contracts. In addition, a portion of our revenue is related to usage of our platform in connection with live events, such as sporting events, that have continued to be impacted. Usage of our platform fluctuated following the implementation of preventative measures to contain or mitigate the outbreak of COVID-19, and we cannot predict how usage levels will continue to be impacted by these preventative measures. There is no assurance that customers will continue to use our platform, or to the same extent, as the COVID-19 pandemic begins to taper off or when it has ended. As a result, it has been difficult to accurately forecast our revenues or financial results, especially given that the near and long term impact of the pandemic remains uncertain. Our results of operations could be materially below our forecasts, which could adversely affect our results of operations, disappoint analysts and investors, or cause our stock price to decline.

In response to the COVID-19 pandemic, many state, local, and foreign governments have put in place restrictions in order to control the spread of the disease. Such restrictions, or the perception that further restrictions could occur, have resulted in business closures, work stoppages, slowdowns and delays, work-from-home policies, travel restrictions, and cancellation or postponement of events, among other effects that impacted productivity and disrupted our operations and those of our partners and customers. For example, we experienced delays in the ramping of new traffic due to travel and data center restrictions in South Asia that delayed network build outs and the timing of customer code freezes, each affected in part due to COVID-19-related issues. In addition, our suppliers have been impacted by the COVID-19 pandemic, which has reduced the availability or resulted in delays, and may continue to reduce the availability or result in delays, of parts and components to us. Our offices have remained temporarily closed since March 2020, and we have taken other precautionary measures, such as instituting protocols and guidelines for Fastly-related travel and shifting to hosting virtual Fastly-sponsored events in lieu of in-person events. We may take further actions that alter our operations as may be required by federal, state, or local authorities, or which we determine are in our best interests. While much of our operations can be performed remotely, certain activities such as expanding and maintaining our network of POPs around the world often require personnel to be on-site, and our ability to carry out these activities has been, and may continue to be, negatively impacted if our employees or local data center personnel are not able to travel. In addition, travel restrictions have affected our ability to conduct audits of our data centers and facilities,

requiring us to use alternative procedures to the standard on-site visit. Any inability to complete these audits could affect our compliance certifications and cause customers to reduce or cease using our services. In addition, for activities that may be conducted remotely, there is no guarantee that we will be as effective while working remotely because our team is dispersed and many employees and their families have been negatively affected, mentally or physically, by the COVID-19 pandemic. Decreased effectiveness and availability of our team could adversely affect our results due to slow-downs in our sales cycles and our customer ramping and onboarding process, delays in recruiting and onboarding efforts, delays in our entry into customer contracts, delays in addressing performance issues, delays in product development, delays and inefficiencies among various operational aspects of our business, including our financial organization, or other decreases in productivity that could seriously harm our business. Moreover, our finance organization's ability to ensure that we comply with the requirements of Section 404 may be impaired in the future, including the ability of our registered public accounting firm to issue an attestation report on management's assessment of our internal control over financial reporting. Furthermore, we may decide to postpone or cancel planned investments in our business in response to changes in our business as a result of the spread of COVID-19, which may impact our ability to attract and retain customers and our rate of innovation, either of which could harm our business.

In addition, while the potential impact and duration of the COVID-19 pandemic on the global economy and our business in particular may be difficult to assess or predict, the pandemic has resulted in, and may continue to result in, significant disruption of global financial markets, and may reduce our ability to access additional capital, which could negatively affect our liquidity in the future.

The ultimate duration and extent of the impact from the COVID-19 pandemic depends on future developments that cannot be accurately forecasted at this time. These developments include the severity and transmission rate of the disease, the emergence of new variants, the actions of governments, businesses and individuals in response to the pandemic, the extent and effectiveness of containment actions and vaccines, the impact on economic activity and the impact of these and other factors. We do not yet know how businesses, customers, or our partners will operate in a post COVID-19 environment. There may be additional costs or impacts to our business and operations, including when we are able to return to our offices and resume in-person activities, travel, and events. In addition, there is no guarantee that a future outbreak of this or any other widespread epidemics will not occur, or that the global economy will recover, either of which could harm our business.

We may not be able to scale our business quickly enough to meet our customers' growing needs. If we are not able to grow efficiently, our business could be harmed.

As usage of our edge cloud computing platform grows and as the breadth of use cases for our platform expands, we will need to devote additional resources to improving our platform architecture, integrating with third-party applications and maintaining infrastructure performance. In addition, we will need to appropriately scale our processes and procedures that support our growing customer base, including increasing our number of POPs around the world and investments in systems, training, and customer support.

Any failure of or delay in these efforts could cause impaired system performance and reduced customer satisfaction. These issues could reduce the attractiveness of our platform to customers, resulting in decreased sales to new customers, lower renewal rates by existing customers, the issuance of service credits, or requested refunds, which would hurt our revenue growth and our reputation. Even if we are able to upgrade our systems and expand our staff, any such expansion will be expensive and complex, and require the dedication of significant management time and attention. We could also face inefficiencies or operational failures as a result of our efforts to scale our cloud infrastructure. We cannot be sure that the expansion and improvements to our cloud infrastructure will be effectively implemented on a timely basis, if at all, and such failures would harm our business.

We may have insufficient transmission bandwidth and colocation space, which could result in disruptions to our platform and loss of revenue.

Our operations are dependent in part upon transmission bandwidth provided by third-party telecommunications network providers and access to colocation facilities to house our servers. There can be no assurance that we are adequately prepared for unexpected increases in bandwidth demands by our customers, particularly when customers experience cyber-attacks. The bandwidth we have contracted to purchase may become unavailable for a variety of reasons, including service outages, payment disputes, network providers going out of business, natural disasters, networks imposing traffic limits, or governments adopting regulations that impact network operations. In some regions, bandwidth providers have their own services that compete with us, or they may choose to develop their own services that will compete with us. These bandwidth providers may become unwilling

to sell us adequate transmission bandwidth at fair market prices, if at all. This risk is heightened where market power is concentrated with one or a few major networks. We also may be unable to move quickly enough to augment capacity to reflect growing traffic or security demands. Failure to put in place the capacity we require could result in a reduction in, or disruption of, service to our customers and ultimately a loss of those customers. Such a failure could result in our inability to acquire new customers demanding capacity not available on our platform.

The nature of our business exposes us to inherent liability risks.

Our platform and related applications, including our security solutions, are designed to provide rapid protection against web application vulnerabilities and cyber-attacks. However, no security product can provide absolute protection against all vulnerabilities and cyber-attacks. Our platform is subject to cyber-attacks, and the failure of our platform and related applications to adequately protect against these cyber-attacks may allow our customers to be attacked. Any adverse consequences of these attacks, and our failure to meet our customers' expectations as they relate to such attacks, could harm our business.

Due to the nature of our applications, we are potentially exposed to greater risks of liability for product or system failures than may be inherent in other businesses. Although substantially all of our customer agreements contain provisions that limit our liability to our customers, these limitations may not be sufficient, and we cannot assure you that these limitations will be enforced or the costs of any litigation related to actual or alleged omissions or failures would not have a material adverse effect on us even if we prevail.

Our dedication to our values may negatively influence our financial results.

We have taken, and may continue to take, actions that we believe are in the best interests of our customers, our employees, and our business, even if those actions do not maximize financial results in the short term. For instance, we do not knowingly allow our platform to be used to deliver content from groups that promote violence or hate, and that conflict with our values like strong ethical principles of integrity and trustworthiness, among others. In the past, we have removed customers from our platform who we believed took positions conflicting with these values, and we may continue to do so in the future. However, this approach may not result in the benefits that we expect, and our employees or third parties may disagree with our interpretation of our values, or take issue with how we execute on our values, which may result in us becoming a target for negative publicity, increased scrutiny, lawsuits, or network attacks, in which case our business could be harmed.

Our growth depends in large part on the success of our partner relationships.

We maintain a partner ecosystem of companies who build edge applications to integrate with our platform. We are dependent on these partner relationships to amplify our reach and provide our customers with enhanced value from our platform. Our future growth will be increasingly dependent on the success of our partner relationships, including their development of useful applications for our platform. If those partnerships do not provide these benefits or if our partners are unable to serve our customers effectively, we may need to allocate resources internally to provide these services or our customers may not realize the full value of our platform, which could harm our business.

Moreover, our partners' business partners may not completely align with our core values and therefore may do business with companies that we otherwise would not. Our association with these companies could damage our brand and reputation and potentially harm our business.

We operate in an emerging and evolving market, which may develop more slowly or differently than we expect. If our market does not grow as we expect, or if we cannot expand our services to meet the demands of this market, our revenue may decline, or fail to grow, and we may incur operating losses.

The market for edge computing is in an early stage of development. There is considerable uncertainty over the size and rate at which this market will grow, as well as whether our platform will be widely adopted. Our success will depend, to a substantial extent, on the widespread adoption of our platform as an alternative to other solutions, such as legacy CDNs, enterprise data centers, central cloud, and small business-focused CDNs. Some organizations may be reluctant or unwilling to use our platform for a number of reasons, including concerns about additional costs, uncertainty regarding the reliability, and security of cloud-based offerings or lack of awareness of the benefits of our platform. Moreover, many organizations have

invested substantial personnel and financial resources to integrate traditional on-premise services into their businesses, and therefore may be reluctant or unwilling to migrate to cloud-based services. Our ability to expand sales of our product into new and existing markets depends on several factors, including potential customer awareness of our platform; the timely completion of data centers in those markets; introduction and market acceptance of enhancements to our platform or new applications that we may introduce; our ability to attract, retain and effectively train sales and marketing personnel; our ability to develop relationships with partners; the effectiveness of our marketing programs; the pricing of our services; and the success of our competitors. If we are unsuccessful in developing and marketing our product into new and existing markets, or if organizations do not perceive or value the benefits of our platform, the market for our product might not continue to develop or might develop more slowly than we expect, either of which may harm our business.

The estimates of market opportunity and forecasts of market growth may prove to be inaccurate, and any real or perceived inaccuracies may harm our reputation and negatively affect our business. Even if the market in which we compete achieves the forecasted growth, our business could fail to grow at similar rates, if at all.

Third-party market opportunity estimates and our growth forecasts are subject to significant uncertainty and are based on assumptions and estimates that may not prove to be accurate. The variables that go into the calculation of our market opportunity are subject to change over time, and there is no guarantee that any particular number or percentage of addressable companies or end-users covered by our market opportunity estimates will purchase our products at all or generate any particular level of revenues for us. Even if the market in which we compete meets the size estimates and growth forecasted, our business could fail to grow for a variety of reasons, including reasons outside of our control, such as competition in our industry.

Usage of our platform accounts for substantially all of our revenue.

We expect that we will be substantially dependent on our edge cloud platform to generate revenue for the foreseeable future. As a result, our operating results could suffer due to:

- any decline in demand for our edge cloud platform;
- the failure of our edge cloud platform to achieve continued market acceptance;
- the market for edge cloud computing services not continuing to grow, or growing more slowly than we expect;
- the introduction of products and technologies that serve as a replacement or substitute for, or represent an improvement over, our edge cloud platform;
- technological innovations or new standards that our edge cloud platform does not address;
- sensitivity to current or future prices offered by us or our competitors;
- our customers' development of their own edge cloud platform; and
- our inability to release enhanced versions of our edge cloud platform on a timely basis.

In addition, because substantially all of our revenue from usage is recognized during the term of the relevant contract upon usage, downturns or upturns in sales contracts are not immediately reflected in full in our operating results.

If the market for our edge cloud platform grows more slowly than anticipated or if demand for our edge cloud platform does not grow as quickly as anticipated, whether as a result of competition, pricing sensitivities, product obsolescence, technological change, unfavorable economic conditions, uncertain geopolitical environment, budgetary constraints of our customers, or other factors, our business would be harmed.

We expect fluctuations in our financial results and key metrics, making it difficult to project future results, and if we fail to meet the expectations of securities analysts or investors, our stock price and the value of your investment could decline significantly.

Our operating results, including revenue, gross margin and net income, as well as our key metrics, including our DBNER, NRR and LTM NRR, have fluctuated in the past and are expected to fluctuate in the future due to a variety of factors, many of which are outside of our control. As a result, our past results may not be indicative of our future performance and period-to-period comparisons of our operating results and key metrics may not be meaningful or accurately measure our business. In addition to the other risks described herein, factors that may affect our operating results include the following:

- fluctuations in demand for or pricing of our platform;
- our ability to attract new customers;
- our ability to retain our existing customers;
- fluctuations in the usage of our platform by our customers, which is directly related to the amount of revenue that we recognize from our customers;
- fluctuations in customer delays in purchasing decisions in anticipation of new products or product enhancements by us or our competitors;
- changes in customers' budgets and in the timing of their budget cycles and purchasing decisions;
- the timing of customer payments and any difficulty in collecting accounts receivable from customers;
- timing of new functionality of our existing platform;
- our ability to control costs, including our operating expenses;
- the amount and timing of payment for operating expenses, particularly research and development and sales and marketing expenses, including commissions;
- the amount and timing of costs associated with recruiting, training, and integrating new employees;
- the effects of acquisitions or other strategic transactions;
- expenses in connection with acquisitions or other strategic transactions;
- our ability to successfully deploy POPs in new regions;
- general economic conditions, both domestically and internationally, as well as economic conditions specifically affecting industries in which our customers participate;
- the ability to maintain our partnerships;
- the impact of new accounting pronouncements;
- changes in the competitive dynamics of our market, including consolidation among competitors or customers;
- significant security breaches of, technical difficulties with, or interruptions to, the delivery and use of our platform; and
- awareness of our brand and our reputation in our target markets.

Additionally, certain large scale events, such as major elections and sporting events, can significantly impact usage of our platform, which could cause fluctuations in our results of operations. While increased usage of our platform during these events could result in increased revenue, these seasonal and one-time events could also impact the performance of our platform during those events and lead to a sub-optimal experience for some customers. Such annual and one-time events may cause fluctuations in our results of operations as they would impact both our revenue and our operating expenses.

Any of the foregoing and other factors may cause our results of operations to vary significantly. Furthermore, if our quarterly results of operations or our guidance fall below the expectations of investors and securities analysts who follow our stock, the price of our Class A common stock could decline substantially, and our business could be harmed. For example, the trading price of our Class A common stock declined significantly after we provided our guidance for the first quarter and full year of 2022 on February 16, 2022 in our earnings release furnished on Form 8-K, which did not meet the expectations of securities analysts who followed our stock. We cannot assure you that our operating results or projected operating results will meet the expectations of market analysts or our investors.

Our pricing models subject us to various challenges that could make it difficult for us to derive sufficient value from our customers, and we do not have sufficient history with our pricing models to accurately predict the optimal pricing necessary to attract new customers and retain existing customers.

We generally charge our customers for their usage of our platform based on the combined total usage, as well as the features and functionality enabled. Additionally, once our product is purchased, customers can also buy a combination of our add-on products. We do not know whether our current or potential customers or the market in general will continue to accept this pricing model going forward and, if it fails to gain acceptance, our business could be harmed. We also generally purchase bandwidth from internet service providers and server colocation space from third parties based on expected usage from our customers. Moreover, if our customers use our platform in a manner that is inconsistent with how we have purchased bandwidth, servers, and colocation space, our business could be harmed.

We have limited experience with respect to determining the optimal prices for our products and, as a result, we have in the past changed our pricing model and expect that we may need to do so in the future. As the market for our products matures, or as new competitors introduce new products or services that compete with ours, we may be unable to attract new customers at the same price or based on the same pricing models as we have used historically. Pricing decisions may also impact the mix of adoption among our customers and negatively impact our overall revenue. Moreover, larger organizations may demand substantial price concessions. As a result, in the future we may be required to reduce our prices or develop new pricing models, which could adversely affect our revenue, gross margin, profitability, financial position, and cash flow.

Our sales and onboarding cycles with customers can be long and unpredictable, and our sales and onboarding efforts require considerable time and expense.

The timing of our sales with our enterprise customers and related revenue recognition is difficult to predict because of the length and unpredictability of the sales cycle for these customers. In addition, for our enterprise customers, the lengthy sales cycle for the evaluation and implementation of our products may also cause us to experience a delay between expenses for such sales efforts and the generation of corresponding revenue. The length of our sales cycle for these customers, from initial evaluation to payment, can range from several months to well over a year and can vary substantially from customer to customer. Similarly, the onboarding and ramping process with new enterprise customers, or with existing customers that are moving additional traffic onto our platform, can take several months. As the purchase of our products can be dependent upon customer initiatives, our sales cycle can extend to even longer periods of time. Customers often view a switch to our platform as a strategic decision requiring significant investment and, as a result, frequently require considerable time to evaluate, test, and qualify our product offering prior to entering into or expanding a contract commitment. During the sales cycle, we expend significant time and money on sales and marketing and contract negotiation activities, which may not result in a completed sale. Additional factors that may influence the length and variability of our sales cycle include:

- the effectiveness of our sales force, particularly new salespeople and sales leadership, as we increase the size of our sales force and train our new salespeople to sell to enterprise customers;
- the discretionary nature of customers' purchasing decisions and budget cycles;

- customers' procurement processes, including their evaluation of competing products;
- economic conditions and other factors affecting customer budgets;
- the regulatory environment in which our customers operate;
- integration complexity for a customer deployment;
- the customer's familiarity with edge cloud computing platforms;
- evolving customer demands;
- selling new products to enterprise customers; and
- competitive conditions.

Given these factors, it is difficult to predict whether and when a customer will switch to our platform.

Given that it can take several months for our customers to ramp up their usage of our platform, during that time, we may not be able to generate enough revenue from a particular customer or that customer may not increase their usage in a meaningful way. Moreover, because the switching costs are fairly low, our customers are able to switch from our platform to alternative services relatively easily. As a result, actual usage could be materially below our forecasts, which could adversely affect our results of operations, disappoint analysts and investors, or cause our stock price to decline.

If our platform does not achieve sufficient market acceptance, our financial results and competitive position will suffer.

To meet our customers' rapidly evolving demands, we invest substantial resources in research and development of enhanced products to incorporate additional functionality or expand the use cases that our platform addresses. Maintaining adequate research and development resources, such as the appropriate personnel and development technology, to meet the demands of the market is essential. If we are unable to develop products internally due to inadequate or ineffective research and development resources, we may not be able to address our customers' needs on a timely basis or at all. In addition, if we seek to supplement our research and development capabilities or the breadth of our products through acquisitions, such acquisitions could be expensive and we may not successfully integrate acquired technologies or businesses into our business. When we develop or acquire new or enhanced products, we typically incur expenses and expend resources upfront to develop, market, promote, and sell the new offering. Therefore, when we develop or acquire and introduce new or enhanced products, they must achieve high levels of market acceptance in order to justify the amount of our investment in developing or acquiring and bringing them to market. Our new products or enhancements and changes to our existing products could fail to attain sufficient market acceptance for many reasons, including:

- failure to predict market demand accurately in terms of functionality and a failure to supply products that meet this demand in a timely fashion;
- defects, errors, or failures;
- negative publicity about our platform's performance or effectiveness;
- changes in the legal or regulatory requirements, or increased legal or regulatory scrutiny, adversely affecting our platform;
- emergence of a competitor that achieves market acceptance before we do;
- delays in releasing enhancements to our platform to the market; and

- introduction or anticipated introduction of competing products by our competitors.

If our platform and any future enhancements do not achieve adequate acceptance in the market, or if products and technologies developed by others achieve greater acceptance in the market, our business could be harmed.

Beyond overall acceptance of our platform by our customers, it is important that we maintain and grow acceptance of our platform among the developers that work for our customers. We rely on developers to choose our platform over other options they may have, and to continue to use and promote our platform as they move between companies. These developers often make design decisions and influence the product and vendor processes within our customers. If we fail to gain or maintain their acceptance of our platform, our business would be harmed.

We rely on third-party hosting providers that may be difficult to replace.

We rely on third-party hosting services such as Amazon Web Services ("AWS"), Google, IBM Softlayer, Microsoft Azure, and other cloud providers that facilitate the offering of our platform. Some of these third-party hosting services offer competing products to ours and therefore may not continue to be available on commercially reasonable terms, or at all. These providers may be unwilling to do business with us if they view our platform as a threat. Any loss of the right to use any of the hosting providers could impair our ability to offer our platform and harm our business until we are able to obtain alternative hosting providers.

If we do not or cannot maintain the compatibility of our platform with third-party applications that our customers use in their businesses, our business will be harmed.

Because our customers choose to integrate our products with certain capabilities provided by third-party providers, the functionality and popularity of our platform depends, in part, on our ability to integrate our platform and applications with third-party applications. These third parties may change the features of their technologies, restrict our access to their applications, or alter the terms governing use of their applications in a manner that is adverse to our business. Such changes could functionally limit or prevent our ability to use these third-party technologies in conjunction with our platform, which would negatively affect adoption of our platform and harm our business. If we fail to integrate our platform with new third-party applications that our customers use, we may not be able to offer the functionality that our customers need, which would harm our business.

We provide service level commitments under our customer agreements. If we fail to meet these contractual commitments, we could be obligated to provide credits for future service, or face contract termination with refunds of prepaid amounts, which could harm our business.

Most of our customer agreements contain service level commitments. If we are unable to meet the stated service level commitments, including failure to meet the uptime and delivery requirements under our customer agreements, we have in the past and may in the future be contractually obligated to provide the affected customers with service credits which could significantly affect our revenues in the periods in which the uptime and delivery failure occurs and the credits are applied. For example, as a result of platform interruptions in January 2021 and June 2021, certain of our affected customers with whom we have service level commitments were entitled to receive service credits. We could also face customer terminations with refunds of prepaid amounts, which could significantly affect both our current and future revenues. Any service level failures could harm our business.

If we fail to offer high quality support, our business may be harmed.

Our customers rely on our support team to assist them in deploying our products effectively and resolve technical and operational issues. High-quality support is important for the renewal and expansion of our agreements with existing customers. The importance of maintaining high quality support will increase as we expand our business and pursue new customers. If we do not help our customers quickly resolve issues and provide effective ongoing support, our ability to maintain and expand our relationships with existing and new customers could suffer and our business could be harmed. Further, increased demand for customer support, without corresponding revenue, could increase costs and adversely affect our business. In addition, as we continue to grow our operations and expand internationally, we will need to be able to provide efficient customer support that

meets our customers' needs globally at scale and our customer support team will face additional challenges, including those associated with delivering support and documentation in multiple languages. Our failure to do so could harm our business.

Risks Related to Employees and Managing Our Growth

The failure to attract and retain additional qualified personnel could prevent us from executing our business strategy.

To execute our business strategy, we must attract and retain highly qualified personnel. Competition for executive officers, software developers, sales personnel, product managers, and other key employees in our industry is intense. In particular, we compete with many other companies for software developers with high levels of experience in designing, developing, and managing cloud-based software, as well as for skilled sales, operations, and security professionals. In addition, we believe that the success of our business and corporate culture depends on employing people with a variety of backgrounds and experiences, and the competition for such diverse personnel is significant. The market for such talented personnel is competitive. This competitive situation has become exacerbated by the increase in employee resignations currently taking place throughout the United States, in part as a result of the COVID-19 pandemic, which is commonly referred to as the "great resignation." We have experienced significant unwanted employee attrition which we believe has been due to such competition, and we may continue to experience unwanted employee attrition in the future. Many of the companies with which we compete for experienced personnel have greater resources than we do and can frequently offer such personnel substantially greater compensation than we can offer, including, in some cases, large equity packages and cash incentive bonuses. In addition, prospective and existing employees often consider the value of the equity awards they receive in connection with their employment. If the perceived value of our equity awards declines, experiences significant volatility, or increases such that prospective employees believe there is limited upside to the value of our equity awards, it may adversely affect our ability to recruit and retain key employees. Moreover, we face significant competition in hiring and attracting qualified employees in all aspects of our business, and the recent move by companies to offer a remote or hybrid work environment may increase the competition for such employees. If we fail to attract new personnel or fail to retain and motivate our current personnel, our ability to maintain and enhance our platform, develop and deliver new products, fix bugs, support our existing customers, attract new customers, respond to competitive pressures, and otherwise execute our business plan would be harmed.

We rely on the performance of highly skilled personnel, including our senior management and other key employees, and the loss of one or more of such personnel, or of a significant number of our team members, could harm our business.

We believe our success has depended, and continues to depend, on the efforts and talents of senior management and key personnel, including Artur Bergman, our Chief Architect and Executive Chairman and Joshua Bixby, our Chief Executive Officer. There have been, and from time to time, there may continue to be, changes in our management team resulting from the hiring or departure of executives and key employees, or the transition of executives within our business, which could disrupt our business. Some of our executive officers and members of our management team have been with us for a short period of time and we are continuing to develop key functions within various aspects of our business. We are also dependent on the continued service of our existing software engineers because of the complexity of our platform. Our senior management, including Mr. Bergman and Mr. Bixby, and key employees are employed on an at-will basis. We cannot ensure that we will be able to retain the services of any member of our senior management or other key employees or that we would be able to timely replace members of our senior management or other key employees should any of them depart. The loss of one or more of our senior management or other key employees could harm our business.

Our past rapid growth may not be indicative of our future growth and, if we resume growing rapidly, we may not be able to manage our growth effectively.

We have experienced substantial growth in various aspects of our business in prior periods. For example, as of December 31, 2021, December 31, 2020, and December 31, 2019, our revenue was \$354.3 million, \$290.9 million, and \$200.5 million, respectively. In addition, we are expanding, and expect to continue to expand in the future, our international operations. For example, from December 31, 2020 to December 31, 2021, our edge network increased from 40 to 51 markets and from 25 to 31 countries that are outside of the United States. We have also experienced significant growth in the number of customers, usage, and amount of data delivered across our platform. This growth has placed and may continue to place significant demands on our corporate culture, operational infrastructure, and management. Although our business has experienced significant growth

in the past, we cannot provide any assurance that our business will continue to grow at the same rate, or at all. Overall growth of our business depends on a number of factors, including our ability to:

- address new and developing markets, such as large enterprise customers outside the United States;
- retain our existing employees in this period of "great resignation";
- recruit, hire, train, and manage additional qualified engineers and product managers;
- recruit, hire, train, and manage additional sales and marketing personnel;
- maintain and enhance our corporate culture;
- expand our international operations;
- establish more mature organizational designs and structures, with more skill, technical and leadership depth with experience scaling and expanding global businesses;
- implement and improve our administrative, financial and operational systems, procedures, and controls;
- attract new customers and increase our existing customers' usage on our platform;
- expand the functionality and use cases for the products we offer on our platform;
- provide our customers with customer support that meets their needs;
- successfully identify and acquire or invest in businesses, products, or technologies that we believe could complement or expand our products, such as our acquisition of Signal Sciences; and
- recruit experienced leaders and strategists to facilitate successful acquisitions and integrations.

We may not successfully accomplish any of the above objectives. We expect to continue to expend substantial financial and other resources on:

- sales and marketing, including a significant expansion of our sales organization;
- our infrastructure, including POP deployments, systems architecture, management tools, scalability, availability, performance, and security, as well as disaster recovery measures;
- product development, including investments in our product development team and the development of new products and new functionality for our existing products;
- acquisitions or strategic investments;
- international expansion; and
- general administration, including increased legal and accounting expenses associated with being a public company.

These activities will require significant investments and allocation of valuable management and employee resources, and our growth will continue to place significant demands on our management and our operational and financial infrastructure. There are no guarantees we will be able to grow our business in an efficient or timely manner, or at all. If we fail to manage the growth of our business and operations effectively, the quality of our services and the efficiency of our operations could suffer,

which could adversely affect our business, financial condition, and results of operations. If we are unable to return to our prior level of growth, our business will be harmed.

In addition, our past rapid growth may make it difficult to evaluate our future performance. Our ability to forecast our future results of operations is subject to a number of uncertainties. If we fail to achieve the necessary level of efficiency in our company as it grows, or if we are not able to accurately forecast future growth, our business would be negatively impacted.

If we cannot maintain our company culture as we grow, our success and our business may be harmed.

We believe our culture has been a key contributor to our success to date and that the critical nature of the products that we provide promotes a sense of greater purpose and fulfillment in our employees. Any failure to preserve our culture could negatively affect our ability to recruit and retain personnel and to effectively focus on and pursue our corporate objectives. As we grow and develop the systems and processes associated with being a public company, we may find it difficult to maintain these important aspects of our culture. The recent increase in employee attrition we have experienced in part due to the ongoing “great resignation” has adversely affected our corporate culture, particularly now that our workforce has been fully virtual since March 2020 due to the COVID-19 pandemic. In addition, while we have historically benefited from having a dispersed workforce, as we have grown and our resources have become more globally dispersed and our organizational management structures have become more complex, we have found it increasingly difficult to maintain these beneficial aspects of our corporate culture. In addition, we may seek to acquire or invest in businesses, products or technologies with differing corporate cultures that could be difficult to integrate. If we fail to maintain our company culture, our business may be harmed.

Risks Related to Our Financial Position and Need for Additional Capital

Seasonality may cause fluctuations in our sales and operating results.

We have experienced, and expect to continue to experience in the future, seasonality in our business, and our operating results and financial condition may be affected by such trends in the future. We generally experience seasonal fluctuations in demand for our platform. For example, we have some customers who increase their usage and requests when they need more capacity during busy periods, especially in the fourth quarter of the year, and then subsequently scale back. We also host certain large scale events, such as major elections or sporting events, that may be seasonal or one-time which can cause revenue to fluctuate between the periods in which these events occur and subsequent periods. Since we have built our network to handle seasonal capacity fluctuations, we may not be able to reduce our capacity in a timely manner, and as such sustain more costs. We believe that the seasonal trends that we have experienced in the past may continue for the foreseeable future, particularly as we expand our sales to larger enterprises. To the extent we experience this seasonality, it may cause fluctuations in our operating results and financial metrics, and make forecasting our future operating results and financial metrics difficult. Additionally, we do not have sufficient experience in selling certain of our products to determine if demand for these products are or will be subject to material seasonality.

Our current operations are international in scope and we plan on further geographic expansion, creating a variety of operational challenges.

A component of our growth strategy involves the further expansion of our operations and customer base internationally. For the year ended December 31, 2021, the percentage of revenue generated from customers outside the United States was 27% of our total revenue. As of December 31, 2021, our edge network spans across 51 markets and 31 countries that are outside of the United States. Additionally, we have employees located throughout the world. We are continuing to adapt to and develop strategies to address international markets but there is no guarantee that such efforts will have the desired effect. As of December 31, 2021, approximately 19% of our full-time employees were located outside of the United States. We expect that our international activities will grow over the foreseeable future as we continue to pursue opportunities in existing and new international markets, which will require significant management attention and financial resources. In connection with such expansion, we may face difficulties including costs associated with, varying seasonality patterns, potential adverse movement of currency exchange rates, longer payment cycle difficulties in collecting accounts receivable in some countries, tariffs and trade barriers, a variety of regulatory or contractual limitations on our ability to operate, adverse tax events, reduced protection of intellectual property rights in some countries, and a geographically and culturally diverse workforce and customer base. Failure to overcome any of these difficulties could harm our business.

Our current and future international business and operations involve a variety of risks, including:

- changes in a specific country's or region's political or economic conditions;
- greater difficulty collecting accounts receivable and longer payment cycles;
- potential or unexpected changes in trade relations, regulations, or laws;
- increased regulatory inquiry or oversight;
- more stringent regulations relating to privacy and data security and the unauthorized use of, or access to, commercial and personal information, particularly in Europe;
- differing labor regulations, especially in Europe and Japan, where labor laws are generally more advantageous to employees as compared to the United States., including deemed hourly wage and overtime regulations in these locations;
- challenges inherent in efficiently managing an increased number of employees over large geographic distances, including the need to implement appropriate systems, policies, benefits, and compliance programs;
- challenges to our corporate culture resulting from a dispersed workforce;
- difficulties in managing a business in new markets with diverse cultures, languages, customs, legal systems, alternative dispute systems, and regulatory systems;
- increased travel, real estate, infrastructure, and legal compliance costs associated with international operations;
- currency exchange rate fluctuations and the resulting effect on our revenue and expenses, and the cost and risk of entering into hedging transactions if we chose to do so in the future;
- challenges related to providing support and developing products in foreign languages;
- limitations on our ability to reinvest earnings from operations in one country to fund the capital needs of our operations in other countries;
- laws and business practices favoring local competitors or general market preferences for local vendors;
- potential tariffs and trade barriers;
- limited or insufficient intellectual property protection or difficulties enforcing our intellectual property;
- political instability or terrorist activities;
- exposure to liabilities under anti-corruption and anti-money laundering laws, and similar laws and regulations in other jurisdictions; and
- adverse tax burdens and foreign exchange controls that could make it difficult to repatriate earnings and cash.

If any of the above risks materialize, it could harm our business and prospects. In addition, our limited experience in operating our business internationally increases the risk that any potential future expansion efforts that we may undertake will not be successful. If we invest substantial time and resources to further expand our international operations and are unable to do so successfully and in a timely manner, our business may be harmed.

Our ability to timely raise capital in the future may be limited, or may be unavailable on acceptable terms, if at all, and our failure to raise capital when needed could harm our business, and debt or equity issued to raise additional capital may reduce the value of our Class A common stock.

We have funded our operations since inception primarily through payments received from our customers, sales of equity and debt securities, and borrowings under our credit facilities. We cannot be certain when or if our operations will generate sufficient cash to fully fund our ongoing operations or the growth of our business. We intend to continue to make investments to support our business and may require additional funds. Our future capital requirements may vary materially from those currently planned and will depend on many factors, including our growth rate, market acceptance of our platform, the expansion of sales and marketing activities, strategic transactions, as well as overall economic conditions. For example, on October 1, 2020 we acquired Signal Sciences for an aggregate purchase price of \$759.4 million, consisting of approximately \$223.0 million in cash and 6,367,709 shares of our Class A common stock, including 896,499 shares which are restricted as they are subject to vesting conditions. The aggregate purchase price reflects the value of the net shares issued, which excludes the above mentioned shares that are restricted.

We may need to engage in equity or debt financings to secure additional funds. Additional financing may not be available on favorable terms, if at all and any additional financing will need to be in compliance with the terms of our Credit Agreement, dated as of February 16, 2021, by and among us as borrower, the lenders from time to time party thereto, and Silicon Valley Bank as a lender, the issuing lender and the swingline lender, and as administrative agent and collateral agent for the lenders ("Credit Agreement"). If adequate funds are not available on acceptable terms, we may be unable to invest in future growth opportunities, which could harm our business, operating results, and financial condition. Furthermore, if we issue additional equity securities, stockholders will experience dilution, and the new equity securities could have rights senior to those of our Class A common stock. Any debt financing we secure could involve additional 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 were to violate such restrictive covenants, we could incur penalties, increased expenses and an acceleration of the payment terms of our outstanding debt, which could in turn harm our business. Because our decision to issue securities in future offerings will depend on numerous considerations, including factors beyond our control, we cannot predict or estimate the amount, timing, or nature of any future issuances of debt or equity securities. As a result, our stockholders bear the risk of future issuances of debt or equity securities reducing the value of our Class A common stock and diluting their interests.

If our estimates or judgments relating to our critical accounting policies prove to be incorrect, our results of operations could be adversely affected.

The preparation of financial statements in conformity with generally accepted accounting principles in the United States ("U.S. GAAP") requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, as provided in the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies." The results of these estimates form the basis for making judgments about the carrying values of assets, liabilities, and equity and the amount of revenue and expenses that are not readily apparent from other sources. Significant assumptions and estimates used in preparing our consolidated financial statements include, but are not limited to, those related to revenue, accounts receivable and related reserves, fair value of assets acquired and liabilities assumed for business combinations, useful lives and realizability of long-lived assets including our goodwill and intangible assets, income tax reserves, and accounting for stock-based compensation. Our results of operations may be adversely affected if our assumptions change or if actual circumstances differ from those in our assumptions, which could cause our results of operations to fall below the expectations of securities analysts and investors, resulting in a decline in the trading price of our Class A common stock.

Current and future indebtedness could restrict our operations, particularly our ability to respond to changes in our business or to take specified actions.

Our Credit Agreement with SVB contains, and any future indebtedness would likely contain, a number of restrictive covenants that impose significant operating and financial restrictions on us, including restrictions on our ability to incur additional indebtedness, grant liens, pay dividends and make distributions, transfer property, make investments, and take other actions that may otherwise be in our best interests. In addition, our Credit Agreement contains a financial covenant that requires us to maintain a consolidated adjusted quick ratio of at least 1:25 to 1:00 tested on a quarterly basis as well as a springing revenue growth covenant for certain periods if our consolidated adjusted quick ratio falls below 1.75 to 1:00 on the last day of any fiscal quarter. Our ability to meet these financial covenants can be affected by events beyond our control, and we may not be able to continue to meet those covenants. In addition, a breach of a covenant under our Credit Agreement or any other current or future credit facility of ours may result in a cross-default under any such separate credit facility. If we seek to enter into one or more additional credit facilities in the future we may not be able to obtain debt financing on terms that are favorable to us, if at all. Holders of our existing debt have, and holders of any future debt we may incur would have, rights senior to holders of common stock to make claims on our assets. In addition, the terms of our existing debt do, and the terms of any future debt could, restrict our operations, including our ability to pay dividends on our Class A common stock. If we are unable to obtain adequate financing or financing on terms that are satisfactory to us when we require it, our ability to continue to support our business growth and to respond to business challenges could be significantly impaired, and our business may be harmed.

We have identified three material weaknesses in our internal control over financial reporting, and if we are unable to remediate and maintain effective internal control over financial reporting in the future, investors may lose confidence in the accuracy and completeness of our financial reports, and the market price of our Class A common stock may be seriously harmed.

As a public company, we are required to maintain internal control over financial reporting and to report any material weaknesses in those internal controls. For example, we are required to perform system and process evaluation and testing of our internal control over financial reporting to allow management to report on the effectiveness of our internal control over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act 9 ("Section 404"). Our independent registered public accounting firm also needs to attest to the effectiveness of our internal control over financial reporting. We designed, implemented, and tested internal control over financial reporting required to comply with this obligation. That process is time-consuming, costly, and complicated.

As further detailed in Item 9A in this report, we and our independent registered public accounting firm identified material weaknesses in our internal control over financial reporting for the years ended December 31, 2021, 2020, 2019 and 2018, some of which were newly identified in the year ended December 31, 2021 and one was originally identified in prior years and remains partially unremediated for the year ended December 31, 2021. The material weaknesses related to the lack of sufficient qualified accounting resources, lack of timely and complete identification of internal-use software costs for capitalization, and a system implementation of our stock plan administration system. We previously reported a material weakness in our Annual Reports on Form 10-K for the years ended December 31, 2020 and December 31, 2019.

The process of implementing an effective financial reporting system is a continuous effort that requires us to anticipate and react to changes in our business and the economic and regulatory environments and to expand significant resources to maintain a financial reporting system that is adequate to satisfy our reporting obligations. We continue to evaluate and take actions to improve our internal control over financial reporting. To remediate the material weakness related to a lack of sufficient, qualified finance and accounting resources commensurate with the complexity of the Company's operations and financial reporting requirements, we will continue to hire, retain and oversee qualified finance and accounting resources to support the Company, including external advisors when appropriate, and add enhanced quarterly reporting of the remediation measures and process to the Audit Committee of the Board of Directors. To remediate the material weakness in internal control over financial reporting during the quarter ended September 30, 2021 related to our accounting for internal-use software costs, we will continue to enhance our process and expand our review controls to ensure complete and timely identification of internal use software costs subject to capitalization, implement additional training of finance, accounting and other Company personnel involved in this process, and work with qualified external advisors to support these efforts. To remediate the material weakness in internal control over financial reporting during the year ended December 31, 2021 related to the design of controls for system implementations associated with a migration of our stock plan administration system, we will update the design and review of controls for system implementations, continue to leverage internal expertise in systems implementation for the design of controls, and work with qualified external advisors to support these efforts.

We cannot assure you that the measures we have taken to date and plan to take will be sufficient to remediate the material weaknesses we identified or avoid the identification of additional material weaknesses in the future.

If we fail to remediate our existing material weaknesses or identify future material weaknesses in our internal control over financial reporting, if we are unable to comply with the requirements of Section 404 or assert that our internal control over financial reporting is effective, or if our independent registered public accounting firm is unable to express an unqualified opinion or expresses a qualified or adverse opinion about the effectiveness of our internal control over financial reporting, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our Class A common stock could be negatively affected. Moreover, any failure to remediate the material weaknesses, or the identification of new material weaknesses in our internal control over financial reporting, could result in material misstatements in our financial statements that may continue undetected and cause us to fail to meet our reporting and financial obligations or incur significant additional costs to remediate the material weaknesses, each of which could harm our ability to raise capital on favorable terms in the future or otherwise have a negative impact on our financial condition. In addition, we could become subject to investigations by the New York Stock Exchange (the "NYSE"), the SEC, and other regulatory authorities, which could require additional financial and management resources.

We may not be able to successfully manage the growth of our business if we are unable to improve our internal systems, processes and controls.

We need to continue to improve our internal systems, processes, and controls to effectively manage our operations and growth. We may not be able to successfully implement and scale improvements to our systems and processes in a timely or efficient manner or in a manner that does not negatively affect our operating results. For example, we may not be able to effectively monitor certain extraordinary contract requirements or provisions that are individually negotiated by our sales force as the number of transactions continues to grow. In addition, our systems and processes may not prevent or detect all errors, omissions, or fraud. We may experience difficulties in managing improvements to our systems, processes, and controls or in connection with third-party software, which could impair our ability to offer our platform to our customers in a timely manner, causing us to lose customers, limit us to smaller deployments of our products, or increase our technical support costs.

Our financial results may be adversely affected by changes in accounting principles applicable to us.

U.S. GAAP are subject to interpretation by the Financial Accounting Standards Board ("FASB"), the SEC and other various bodies formed to promulgate and interpret appropriate accounting principles. A change in these principles or interpretations could have a significant effect on our reported financial results for periods prior to and subsequent to such change, and could affect the reporting of transactions completed before the announcement of a change.

Market practices with respect to these new disclosures are continuously evolving, and securities analysts and investors may not fully understand the implications of our disclosures or how or why they may differ from similar disclosures by other companies. Any additional new accounting standards could have a significant effect on our reported results. If our reported results fall below analyst or investor expectations, our stock price could decline.

Risks Related to Laws, Regulations, and the Global Economy

Failure to comply with United States and foreign governmental laws and regulations could harm our business.

Our business is subject to regulation by various federal, state, local, and foreign governments. If we do not comply with these laws or regulations or if we become liable under these laws or regulations due to the failure of our customers to comply with these laws, we could face direct liability or delivery of content by our platform may be blocked by certain governments. In certain jurisdictions, these regulatory requirements may be more stringent than those in the United States. For example, in June 2020, China passed a national security law for Hong Kong that imposes criminal liability for the violation of content regulations, it is currently not clear how broadly such legislation will be interpreted or applied in relation to our customers or our business, and additional developments in our understanding of the application of this law could cause us to remove our POP from Hong Kong. Noncompliance with applicable regulations or requirements could subject us to investigations, sanctions, enforcement actions, disgorgement of profits, fines, damages, civil and criminal penalties, injunctions, or other collateral consequences. If any governmental sanctions are imposed, or if we do not prevail in any possible civil or criminal litigation, our business could be harmed. In addition, responding to any action will likely result in a significant diversion of management's attention and resources and an increase in professional fees. Enforcement actions and sanctions could harm our business.

If the United States government prohibits our current or potential customers from doing business with us, whether through policy, regulations or laws, we could face direct liability or our delivery of content by our platform may be blocked. For example, in the current environment of economic trade negotiations and tensions between the Chinese and the United States governments, the United States government has expressed concerns about the ability of companies operating in China to do business in the United States or with United States companies. As a result, we could lose the ability to contract with current or potential customers and usage of our platform may decrease by affected customers, which could harm our business and reputation. For example, our largest customer during the year ended December 31, 2020 had strong business ties to China and significantly reduced its usage of our platform. We believe this was in response to various actions taken by the United States and other governments against them. Even in the absence of new restrictions or trade actions imposed by the United States or other governments, our customers that operate in China, target China as a market, or that have strong business ties to China, may take actions to reduce dependence on our platform, which could harm our business.

We are subject, or may become subject, to governmental regulation and other legal obligations, particularly those related to privacy, data protection, infrastructure, and information security, and our actual or perceived failure to comply with such obligations could harm our business, by resulting in litigation, fines, penalties, or adverse publicity and reputational damage, and other adverse consequences that may negatively affect the value of our business and decrease the price of our Class A common stock. Compliance with such laws could also result in additional costs and liabilities to us or inhibit sales of our products.

We receive, store, process, collect, generate, use transfer, disclose, make accessible, protect, secure, dispose of, transmit, and share personal information and other data from and about actual and prospective customers and users, in addition to our employees and service providers. In addition, our customers use our platform to collect personally identifiable information, personal health information, and personal financial information from their end-users. Our handling of data is subject to a variety of laws and regulations, including regulation by various government agencies, such as the United States Federal Trade Commission ("FTC"), and various state, local, and foreign agencies. Our data handling also is subject to contractual obligations, internal and external privacy and security policies, guidance, industry standards, and other obligations that govern the processing of personal information by us and on our behalf. Additionally, we are, or may become, subject to various other laws and regulations around the world with respect to the internet related to, among other things, content liability, security requirements, critical infrastructure designations, internet resiliency, law enforcement access to information, net neutrality, data localization requirements, and restrictions on social media or other content, any of which can have a material impact on our business.

Domestically, states have also begun to introduce more comprehensive privacy legislation, including data breach notification laws, personal information privacy laws, and consumer protection laws. For example, the California Consumer Privacy Act of 2018 ("CCPA") affords consumers expanded privacy protections. The CCPA gives California residents, among other things, expanded rights to access and require deletion of their personal information, opt out of certain personal information sharing, and receive detailed information about how their personal information is used. The CCPA also allows for statutory fines for noncompliance (up to \$7,000 per violation), as well as a private right of action for data breaches that may increase data breach litigation. It is anticipated that the CCPA will be expanded substantially on January 1, 2023, when the California Privacy Rights Act of 2020 ("CPRA") comes into effect. The CPRA among other things, establishes a new California Protection Agency to implement and enforce the CPRA, which could increase the risk of enforcement actions.

The CCPA marks a trend toward more stringent privacy, data protection, and information security legislation in the United States. Privacy, data protection, and information security laws have been proposed at the federal, state, and local levels that, if passed, could increase our potential liability, increase our compliance costs and adversely affect our business. For example, recently Virginia passed the Consumer Data Protection Act and Colorado passed the Colorado Privacy Act, both of which differ from the CPRA and become effective in 2023. Additionally, several states and localities have enacted measures related to the use of artificial intelligence ("AI") and machine learning in products and services. The laws and regulations relating to privacy and data security are evolving, can be subject to significant change and may result in ever-increasing regulatory and public scrutiny and escalating levels of enforcement and sanctions. In addition, the United States or foreign jurisdictions may establish new laws or regulations regarding the internet or online services. These new laws and regulations may affect our products and infrastructure, which could cause us to incur substantial costs to comply, expose us to regulatory scrutiny, criminal or civil liability, require us to fundamentally change our products or operations, or otherwise have an adverse effect on our business. If we become subject to new privacy, data protection, and information security laws at the state level, the risk of enforcement action against us could increase because we may become subject to additional obligations, and the number of individuals or entities that can initiate actions against us may increase (including individuals and state actors).

In addition, an increasing number of foreign laws and regulations apply to privacy, data protection, and information security. For example, the EU GDPR, the U.K. GDPR, Brazil's General Data Protection Law (Lei Geral de Proteção de Dados Pessoais or "LGPD") (Law No. 13,709/2018), Canada's Personal Information Protection and Electronic Documents Act ("PIPEDA") and Canada's Anti-Spam Legislation ("CASL"), and China's Personal Information Protection Law ("PIPL") impose strict requirements for processing the personal information of individuals. European legislative proposals and existing laws and regulations apply to cookies and similar tracking technologies, electronic communications, and marketing. In the EU and the UK, regulators are increasingly focusing on compliance with requirements related to the online behavioral advertising ecosystem. It is anticipated that the ePrivacy Regulation and national implementing laws will replace the current national laws that implement the ePrivacy Directive that governs electronic communications. Compliance with these laws may require us to make significant operational changes, limit the effectiveness of our marketing activities, divert the attention of our technology personnel, adversely affect our margins, and subject us to liabilities. Furthermore, there is a proposed regulation in the EU related to AI that, if adopted, could impose onerous obligations related to the use of AI-related systems that may require us to change our business practices. Under the EU GDPR and U.K. GDPR, government regulators may impose restrictions or injunctions on data processing, and fines of up to 20 million euros (£17.5 million for the U.K. GDPR) or 4% of annual global revenue, whichever is greater. Further, individuals may initiate litigation related to our processing of their personal information.

Certain jurisdictions have enacted data localization laws and cross-border personal information transfer laws, which could make it more difficult to transfer information across jurisdictions (such as transferring or receiving personal information that originates in the EU). Existing mechanisms that may facilitate cross-border personal information transfers may change or be invalidated. For example, absent appropriate safeguards or other circumstances, the EU GDPR generally restricts the transfer of personal information to countries outside of the European Economic Area ("EEA") which the European Commission does not consider as providing an adequate level of protection of personal information, such as the United States. The European Commission recently released a set of Standard Contractual Clauses ("SCCs") that are designed to be a valid mechanism by which entities can transfer personal information out of the EEA. Currently, the SCCs are a valid mechanism to transfer personal information, but impose obligations onto parties relying on them such as to conduct transfer impact assessments to determine whether additional security measures are necessary to protect the transferred personal information. Moreover, due to potential legal challenges, uncertainty exists regarding whether the SCCs will remain a valid mechanism for transfers of personal information out of the EEA. In addition, laws in Switzerland and the UK similarly restrict transfers of personal information outside of those jurisdictions to countries such as the United States. Certain countries outside Europe (e.g. Russia, China, Brazil) have also passed or are considering laws requiring local data residency or otherwise impeding the transfer of personal information across borders, any of which could increase the cost and complexity of doing business. If we cannot implement a valid compliance mechanism for cross-border data transfers, we may face increased exposure to regulatory actions, substantial fines, and injunctions against processing or transferring personal information from Europe or other foreign jurisdictions. The inability to import personal information to the United States could significantly and negatively impact our business operations, limiting our ability to collaborate with parties that are subject to such cross-border data transfer or localization laws, or requiring us to increase our personal information processing capabilities and infrastructure in foreign jurisdictions at significant expense.

The scope and interpretation of the laws that are or may be applicable to us are often uncertain and may be conflicting as a result of the rapidly evolving regulatory framework for privacy and internet issues worldwide. For example, laws relating to the liability of providers of online services for activities of their users and other third parties are currently being tested by a number of claims, including actions based on invasion of privacy and other torts, unfair competition, copyright and trademark infringement, and other theories based on the nature and content of the materials searched, the ads posted, or the content provided by users. Moreover, our global platform outage in June 2021 has increased our public profile and resulted in more frequent interest in our company by regulators. This outage, or any additional outages, may draw additional scrutiny or focused legislation from regulators.

As a result of the laws that are or may be applicable to us, and due to the sensitive nature of the information we collect, we have implemented policies and procedures to preserve and protect our data and our customers' data against loss, misuse, corruption, misappropriation caused by systems failures, unauthorized access, or misuse. If our policies, procedures, or measures relating to privacy, data protection, marketing, or customer communications fail to comply with laws, regulations, policies, legal obligations, or industry standards, we may be subject to governmental enforcement actions, litigation, regulatory investigations, fines, penalties, and negative publicity which could cause our application providers, customers, and partners to lose trust in us, and have an adverse effect on our business, operating results, and financial condition.

In addition to government regulation, privacy advocates, and industry groups may propose new and different self-regulatory standards that may apply to us. Because the interpretation and application of privacy and data protection laws, regulations, rules, and other standards are still uncertain, it is possible that these laws, rules, regulations, and other actual or alleged legal obligations, such as contractual or self-regulatory obligations, may be interpreted and applied in a manner that is inconsistent with our existing data management practices or the functionality of our platform. If so, in addition to the possibility of fines, lawsuits, and other claims, we could be required to fundamentally change our business activities and practices or modify our software, which could have an adverse effect on our business. Preparing for and complying with these obligations requires significant resources and may necessitate changes to our information technologies, systems, and practices and to those of any third parties that process personal information on our behalf.

Any failure or perceived failure by us or third parties upon whom we rely to comply with laws, regulations, policies, legal, or contractual obligations, industry standards, or regulatory guidance relating to privacy or data security, may result in governmental investigations and enforcement actions (including, for example, a ban by EU Supervisory Authorities), litigation, fines and penalties, additional reporting requirements and/or oversight, orders to destroy or not use personal information or adverse publicity, and could cause our customers and partners to lose trust in us, which could have an adverse effect on our reputation and business. Our obligation to assist our customers in their compliance with laws, regulations, and policies, like data processing and data protection requirements under the EU GDPR and U.K GDPR may also result in government enforcement actions litigation, fines and penalties, or adverse publicity.

Future laws, regulations, standards, and other obligations or any changed interpretation of existing laws or regulations could impair our ability to develop and market new functionality and maintain and grow our customer base and increase revenue. Future restrictions on the collection, use, sharing, or disclosure of data or additional requirements for express or implied consent of our customers, partners, or end-users for the use and disclosure of such information could require us to incur additional costs or modify our platform, possibly in a material manner, and could limit our ability to develop new functionality.

If we are not able to comply with these laws or regulations or if we become liable under these laws or regulations, we could be directly harmed, and we may be forced to implement new measures to reduce our exposure to this liability. This may require us to expend substantial resources or to discontinue certain products, which would negatively affect our business, financial condition, and results of operations. In addition, the increased attention focused upon liability issues as a result of lawsuits and legislative proposals could harm our reputation or otherwise adversely affect the growth of our business. Furthermore, any costs incurred as a result of this potential liability could harm our operating results.

Our sales to highly regulated organizations and government entities are subject to a number of challenges and risks.

We sell to customers in highly regulated industries such as financial services, insurance, and healthcare, as well as to various governmental agency customers, including state and local agency customers, and foreign governmental agency customers. Sales to such entities are subject to a number of challenges and risks. Selling to such entities can be highly competitive, expensive, and time-consuming, often requiring significant upfront time and expense without any assurance that these efforts will generate a sale. Government contracting requirements may change and in doing so restrict our ability to sell into the government sector until we comply with the revised requirements. Government demand and payment for our offerings are affected by public sector budgetary cycles and funding authorizations, with funding reductions or delays adversely affecting public sector demand for our offerings.

Further, highly regulated and governmental entities may demand shorter contract terms or other contractual provisions that differ from our standard arrangements, including terms that can lead those customers to obtain broader rights in our offerings than would be standard. Such entities may have statutory, contractual, or other legal rights to terminate contracts with us or our partners due to a default or for other reasons, and any such termination may harm our business. In addition, these governmental agencies may be required to publish the rates we negotiate with them, which could harm our negotiating leverage with other potential customers and in turn harm our business.

The success of our business depends on customers' continued and unimpeded access to our platform on the internet.

Our customers must have internet access in order to use our platform. Some internet providers may take measures that affect their customers' ability to use our platform, such as degrading the quality of the content we transmit over their lines, giving that content lower priority, giving other content higher priority than ours, blocking our content entirely, or attempting to charge their customers more for using our platform.

In January 2018, the Federal Communications Commission, or the FCC, repealed the “network neutrality” rules adopted during the Obama Administration, which barred internet service providers from blocking or slowing down access to online content, protecting services like ours from such interference. The 2018 decision was largely affirmed by the United States Court of Appeals for the District of Columbia Circuit, subject to a remand to consider several issues raised by parties that supported network neutrality, and in November 2020 the FCC affirmed its decision to repeal the rules. Petitions for reconsideration of this decision are pending. President Biden supported restoration of the network neutrality rules during his Presidential campaign, and such action is supported by the current Democratic FCC commissioners. In addition, a number of states have adopted or are adopting or considering legislation or executive actions that would regulate the conduct of broadband providers. A federal court judge denied a request for injunction against California’s state-specific network neutrality law, and as a result, California began enforcing that law. Trade associations representing internet service providers appealed the district court’s ruling denying the preliminary injunction, and the appeal was denied on January 28, 2022. This decision could be appealed to the full court of appeals or the Supreme Court, or the parties could return to the trial court for further proceedings to determine whether a permanent injunction should be granted. We cannot predict whether the FCC order or other state initiatives will be enforced, modified, overturned, or vacated by legal action of the court, federal legislation, or the FCC.

To the extent network operators attempt to interfere with our platform, absent network neutrality rules, attempt to interfere with our services, extract fees from us to deliver our platform, or otherwise engage in discriminatory practices, our business could be adversely impacted. Within such a regulatory environment, we could experience discriminatory or anti-competitive practices that could impede our domestic and international growth, cause us to incur additional expense, or otherwise harm our business. At the same time, re-adoption of network neutrality rules could affect the services used by us and our customers by restricting the offerings made by internet service providers or reducing their incentives to invest in their networks. Such actions could limit or reduce the quality of internet access services and have an adverse impact on the quality of the services we provide to our customers.

We are subject to anti-corruption, anti-bribery, anti-money laundering and similar laws, and non-compliance with such laws can subject us to criminal and/or civil liability and harm our business.

We are subject to the United States Foreign Corrupt Practices Act, the United States domestic bribery statute contained in 18 U.S.C. § 201, the United States Travel Act, the U.K. Bribery Act, and other anti-bribery and anti-money laundering laws in the countries in which we conduct activities. Anti-corruption and anti-bribery laws have been enforced aggressively in recent years and are interpreted broadly to generally prohibit companies and their employees and third-party intermediaries from authorizing, offering or providing, directly or indirectly, improper payments, or benefits to recipients in the public or private sector. As we increase our international sales and business and sales to the public sector, we may engage with business partners and third-party intermediaries to market our platform and to obtain necessary permits, licenses, and other regulatory approvals. In addition, we or our third-party intermediaries may have direct or indirect interactions with officials and employees of government agencies or state-owned or affiliated entities. We can be held liable for the corrupt or other illegal activities of these third-party intermediaries, our employees, representatives, contractors, partners, and agents, even if we do not explicitly authorize such activities.

While we have policies and procedures to address compliance with such laws, we cannot assure you that all of our employees and agents will not take actions in violation of our policies and applicable laws, for which we may be ultimately held responsible. As we increase our international sales and business, our risks under these laws may increase.

Detecting, investigating, and resolving actual or alleged violations can require a significant diversion of time, resources, and attention from senior management. In addition, noncompliance with anti-corruption, anti-bribery, or anti-money laundering laws could subject us to whistleblower complaints, investigations, sanctions, settlements, prosecution or other enforcement actions, disgorgement of profits, significant fines, damages, other civil and criminal penalties or injunctions, suspension or debarment from contracting with certain persons, the loss of export privileges, reputational harm, adverse media coverage, and other collateral consequences. If any subpoenas or investigations are launched, or governmental or other sanctions are imposed or if we do not prevail in any possible civil or criminal litigation, our business could be harmed. In addition, responding to any action will likely result in a materially significant diversion of management’s attention and resources and significant defense costs and other professional fees. Enforcement actions and sanctions could further harm our business.

Changes in our effective tax rate or tax liability may harm our business.

Our effective tax rate could be adversely impacted by several factors, including:

- Changes in the relative amounts of income before taxes in the various jurisdictions in which we operate that have differing statutory tax rates;
- Changes in tax laws, tax treaties, and regulations or the interpretation of them, including the Tax Act;
- Changes to our assessment about our ability to realize our deferred tax assets that are based on estimates of our future results, the prudence and feasibility of possible tax planning strategies, and the economic and political environments in which we do business;
- The outcome of current and future tax audits, examinations, or administrative appeals; and
- Limitations or adverse findings regarding our ability to do business in some jurisdictions.

Should our effective tax rate rise, our business could be harmed.

We could be required to collect additional sales taxes or be subject to other tax liabilities that may increase the costs our clients would have to pay for our offering and harm our business.

An increasing number of states have considered or adopted laws that attempt to impose tax collection obligations on out-of-state companies. Additionally, the Supreme Court of the United States recently ruled in *South Dakota v. Wayfair, Inc. et al* ("Wayfair") that online sellers can be required to collect sales and use tax despite not having a physical presence in the buyer's state. In response to Wayfair, or otherwise, states or local governments may adopt, or begin to enforce, laws requiring us to calculate, collect, and remit taxes on sales in their jurisdictions. A successful assertion by one or more states requiring us to collect taxes where we presently do not do so, or to collect more taxes in a jurisdiction in which we currently do collect some taxes, could result in substantial tax liabilities, including taxes on past sales, as well as penalties and interest. The imposition by state governments or local governments of sales tax collection obligations on out-of-state sellers could also create additional administrative burdens for us, put us at a competitive disadvantage if they do not impose similar obligations on our competitors and decrease our future sales, which could harm our business.

Historically, we have not collected such taxes from our customers and have therefore recorded such taxes as general and administrative expenses. We expect that these expenses will decline in future years as we continue to implement our sales tax collection mechanisms and start collecting these taxes from our customers. However, delays in implementing our sales tax collection mechanisms and changing tax laws could result in us incurring additional expenses that we may not be able to pass onto our customers.

Adverse tax laws or regulations could be enacted or existing laws could be applied to us, which could adversely affect our business and financial condition.

We operate and are subject to taxes in the United States and numerous other jurisdictions throughout the world. Changes to federal, state, local, or international tax laws on income, sales, use, indirect, or other tax laws, statutes, rules, regulations, or ordinances on multinational corporations are currently being considered and have recently been proposed by the United States and other countries where we do business. These contemplated legislative initiatives include, but are not limited to, changes to transfer pricing policies and definitional changes to permanent establishment that could be applied solely or disproportionately to services provided over the internet. These contemplated tax initiatives, if finalized and adopted by countries, may ultimately impact our effective tax rate and could adversely affect our sales activity resulting in a negative impact on our operating results and cash flows.

In addition, existing tax laws, statutes, rules, regulations, or ordinances could be interpreted, changed, modified, or applied adversely to us (possibly with retroactive effect), which could require us to pay additional tax amounts, fines or penalties, and interest for past amounts. The additional tax obligations could relate to our taxes or obligations to report or withhold on customer taxes. We could take steps to collect customer related taxes, but if we are unsuccessful in collecting such

taxes from our customers, we could be held liable for such costs, thereby adversely impacting our operating results and cash flows. Further, if our customers must pay additional fines or penalties, it could adversely affect demand for our services.

On December 22, 2017, President Trump signed into law H.R. 1, "An Act to provide for reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018," informally titled the Tax Act, which significantly revises the Code. The Tax Act, among other things, reduces the corporate tax rate from a top marginal rate of 35% to a flat rate of 21%, limits the tax deduction for interest expense to 30% of adjusted taxable income (except for certain small businesses), limits the deduction for net operating losses carried forward from taxable years beginning after December 31, 2017 to 80% of current year taxable income, eliminates net operating loss carrybacks, imposes a one-time tax on offshore earnings at reduced rates regardless of whether they are repatriated, eliminates United States tax on foreign earnings (subject to certain important exceptions), allows immediate deductions for certain new investments instead of deductions for depreciation expense over time, and modifies or repeals many business deductions and credits. Notwithstanding the reduction in the corporate income tax rate, the overall impact of the Tax Act is uncertain and our business and financial condition could be adversely affected. In addition, it is uncertain if and to what extent various states will conform to the Tax Act. The impact of the Tax Act on holders of our Class A common stock is also uncertain and could be adverse. More recently, on March 18, 2020, the Families First Coronavirus Response Act ("FFCR Act"), and on March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act ("CARES Act") were each enacted in response to the COVID-19 pandemic. The FFCR Act and the CARES Act contain numerous income tax provisions, such as relaxing limitations on the deductibility of interest and the use of net operating losses arising in taxable years beginning after December 31, 2017. In December 2020, the Consolidated Appropriations Act, 2021 ("CAA") was signed into law. The CAA included additional funding through tax credits as part of its economic package for 2021. The Company evaluated these items in its tax computation and determined that the items do not have a material impact on the Company's financial statements as of and for the year ended December 31, 2021. Future regulatory guidance under the FFCR Act, the CARES Act, as well as under the Tax Act, or other executive or Congressional actions in the United States (including, for example, if the Made in America tax plan released in March 2021 were to become law) remain forthcoming, and such guidance could ultimately increase or lessen the impact on our business and financial condition. It is also possible that Congress will enact additional legislation in connection with the COVID-19 pandemic, some of which could materially impact our operations and financial results. We urge our stockholders to consult with their legal and tax advisors with respect to this legislation and the potential tax consequences of investing in or holding our Class A common stock.

Our ability to use our net operating losses to offset future taxable income may be subject to certain limitations.

Our net operating loss ("NOL") carryforwards could expire unused and be unavailable to offset future income tax liabilities because of their limited duration or because of restrictions under United States tax law. Our NOLs generated in tax years ending on or prior to December 31, 2017 are only permitted to be carried forward for 20 years under applicable United States tax law. Under the Tax Act, our federal NOLs generated in tax years ending after December 31, 2017 may be carried forward indefinitely, but the deductibility of such federal NOLs is limited. It is uncertain if and to what extent various states will conform to the Tax Act.

In addition, under Section 382 of the United States Internal Revenue Code of 1986, as amended (the "Code"), a corporation that undergoes an "ownership change" is generally subject to limitations on its ability to utilize its pre-change NOLs to offset future taxable income. We may have experienced ownership changes in the past and may experience ownership changes in the future as a result of subsequent shifts in our stock ownership (some of which shifts are outside our control). Furthermore, our ability to utilize NOLs of companies that we have acquired or may acquire in the future may be subject to limitations. For these reasons, we may not be able to utilize a material portion of the NOLs, even if we were to achieve profitability.

Our international operations may subject us to potential adverse tax consequences.

We are expanding our international operations and staff to better support our growth into international markets. Our corporate structure and associated transfer pricing policies contemplate future growth into the international markets, and consider the functions, risks, and assets of the various entities involved in the intercompany transactions. The amount of taxes we pay in different jurisdictions may depend on: the application of the tax laws of the various jurisdictions, including the United States, to our international business activities; changes in tax rates; new or revised tax laws or interpretations of existing tax laws and policies; and our ability to operate our business in a manner consistent with our corporate structure and intercompany arrangements. The taxing authorities of the jurisdictions in which we operate may challenge our methodologies

for pricing intercompany transactions pursuant to our intercompany arrangements or disagree with our determinations as to the income and expenses attributable to specific jurisdictions. If such a challenge or disagreement were to occur, and our position was not sustained, we could be required to pay additional taxes, interest, and penalties, which could result in one-time tax charges, higher effective tax rates, reduced cash flows, and lower overall profitability of our operations. Our financial statements could fail to reflect adequate reserves to cover such a contingency.

We are subject to governmental export and import controls that could impair our ability to compete in international markets or subject us to liability if we violate such controls.

Our products are subject to the United States export controls, including the Export Administration Regulations administered by the United States Commerce Department, and economic sanctions administered by the Office of Foreign Assets Control of the United States Treasury Department ("OFAC"), and we incorporate encryption technology into certain of our products. These encryption products and the underlying technology may be exported outside of the United States only with the required export authorizations.

Furthermore, our activities are subject to the United States economic sanctions laws and regulations that generally prohibit the direct or indirect exportation or provision of products and services without the required export authorizations to countries, governments, and individuals and entities targeted by the United States embargoes or sanctions, except to the extent authorized by OFAC or exempt from sanctions. Obtaining the necessary export license or other authorization for a particular sale may not always be possible, and, even if the export license is ultimately granted, the process may be time-consuming and may result in the delay or loss of sales opportunities. Violations of the United States sanctions or export control laws can result in significant fines or penalties, and possible incarceration for responsible employees and managers could be imposed for criminal violations of these laws.

Other countries also regulate the import and export of certain encryption products and technology through import and export licensing requirements, and have enacted laws that could limit our ability to distribute our products or could limit our customers' ability to implement our products in those countries. Changes in our products or future changes in export and import regulations may create delays in the introduction of our products in international markets, prevent our customers with international operations from deploying our products globally, or, in some cases, prevent the export or import of our products to certain countries, governments, or persons altogether. From time to time, various governmental agencies have proposed additional regulation of encryption products and technology, including the escrow and government recovery of private encryption keys. Any change in export or import regulations, economic sanctions or related legislation, increased export and import controls, or change in the countries, governments, persons, or technologies targeted by such regulations could result in decreased use of our products by, or in our decreased ability to export or sell our products to, existing or potential customers with international operations. Any decreased use of our products or limitation on our ability to export or sell our products would harm our business.

We are exposed to fluctuations in currency exchange rates.

Our sales contracts are primarily denominated in U.S. dollars, and therefore a majority of our revenue is not subject to foreign currency revaluation. However, a strengthening of the U.S. dollar could increase the real cost of our platform to our customers outside of the United States, which could adversely affect our operating results. In addition, an increasing portion of our operating expenses is incurred outside the United States. These operating expenses are denominated in foreign currencies and are subject to fluctuations due to changes in foreign currency exchange rates. As these expenses become more material and if there are significant fluctuations in foreign currency exchange rates, the risk of not hedging or not hedging effectively could harm our business.

The phase-out of the London Interbank Offered Rate ("LIBOR"), or the replacement of LIBOR with a different reference rate, may adversely affect interest rates.

On July 27, 2017, the Financial Conduct Authority (the "FCA"), the authority that regulates LIBOR, announced that after December 31, 2021, it would no longer compel banks to submit the rates required to calculate LIBOR. On March 5, 2021, the ICE Benchmark Administration, which administers LIBOR, and the FCA announced that all LIBOR settings would either cease to be provided by any administrator, or would no longer be representative, immediately after December 31, 2021 for all non-U.S. dollar LIBOR settings and one-week and two-month U.S. dollar LIBOR settings, and immediately after June 30, 2023 for

the remaining U.S. dollar LIBOR settings. The interest rate under our Credit Agreement is calculated based on LIBOR. No modification has yet been made to the interest rate under the Credit Agreement, but changes will be required in the future. Currently, it is anticipated that the new benchmark for our U.S. dollar borrowings will be the Secured Overnight Financing Rate (“SOFR”). The shift to SOFR from LIBOR is complex and may adversely affect our business, financial condition, results of operations, liquidity, and cash flows.

Unfavorable conditions in our industry or the global economy or reductions in information technology spending could harm our business.

Our results of operations may vary based on the impact of changes in our industry or the global economy on us or our customers and potential customers. Current or future economic uncertainties or downturns could adversely affect our business and results of operations. Negative conditions in the general economy both in the United States and abroad, including conditions resulting from changes in gross domestic product growth, financial and credit market fluctuations, political turmoil, natural catastrophes, warfare, public health issues, such as the COVID-19 pandemic, and terrorist attacks on the United States, Europe, the Asia Pacific region, or elsewhere, could cause a decrease in business investments, including spending on information technology, which would harm our business. To the extent that our platform and our products are perceived by customers and potential customers as too costly, or difficult to deploy or migrate to, our revenue may be disproportionately affected by delays or reductions in general information technology spending. Also, our competitors, many of whom are larger and have greater financial resources than we do, may respond to market conditions by lowering prices and attempting to lure away our customers. In addition, the increased pace of consolidation in certain industries may result in reduced overall spending on our products. We cannot predict the timing, strength, or duration of any economic slowdown, instability, or recovery, generally or within any particular industry.

Risks Related to Intellectual Property

We could incur substantial costs in protecting or defending our proprietary rights, and any failure to adequately protect our rights could impair our competitive position and we may lose valuable assets, experience reduced revenue, and incur costly litigation to protect our rights.

Our success is dependent, in part, upon protecting our proprietary technology. We rely on a combination of patents, copyrights, trademarks, service marks, trade secret laws, and contractual provisions in an effort to establish and protect our proprietary rights. However, the steps we take to protect our intellectual property may be inadequate. While we have issued patents in the United States and other countries and have additional pending patent applications, we may be unable to obtain patent protection for the technology covered in our patent applications. In addition, any patents issued in the future may not provide us with competitive advantages, or may be successfully challenged by third parties. Any of our patents, trademarks, or other intellectual property rights may be challenged or circumvented by others or invalidated through administrative process or litigation. There can be no guarantee that others will not independently develop similar products, duplicate any of our products, or design around our patents. Furthermore, legal standards relating to the validity, enforceability, and scope of protection of intellectual property rights are uncertain. Despite our precautions, it may be possible for unauthorized third parties to copy our products and use information that we regard as proprietary to create products and services that compete with ours. Some license provisions protecting against unauthorized use, copying, transfer, and disclosure of our products may be unenforceable under the laws of jurisdictions outside the United States. To the extent we expand our international activities, our exposure to unauthorized copying and use of our products and proprietary information may increase.

We enter into confidentiality and invention assignment agreements with our employees and consultants and enter into confidentiality agreements with the parties with whom we have strategic relationships and business alliances. No assurance can be given that these agreements will be effective in controlling access to and distribution of our products and proprietary information. Further, these agreements do not prevent our competitors or partners from independently developing technologies that are substantially equivalent or superior to our platform.

In order to monitor and protect our intellectual property rights, we may be required to spend significant resources. Litigation may be necessary in the future to enforce our intellectual property rights and to protect our trade secrets. Litigation brought to protect and enforce our intellectual property rights could be costly, time consuming, and distracting to management and could result in the impairment or loss of portions of our intellectual property. Furthermore, our efforts to enforce our

intellectual property rights may be met with defenses, counterclaims, and countersuits attacking the validity and enforceability of our intellectual property rights. Our inability to protect our proprietary technology against unauthorized copying or use, as well as any costly litigation or diversion of our management's attention and resources, could delay further sales or the implementation of our platform, impair the functionality of our platform, delay introductions of new products, result in our substituting inferior or more costly technologies into our products, or injure our reputation. We will not be able to protect our intellectual property if we are unable to enforce our rights or if we do not detect unauthorized use of our intellectual property. Moreover, policing unauthorized use of our technologies, trade secrets, and intellectual property may be difficult, expensive, and time-consuming, particularly in foreign countries where the laws may not be as protective of intellectual property rights as those in the United States and where mechanisms for enforcement of intellectual property rights may be weak. If we fail to meaningfully protect our intellectual property and proprietary rights, our business may be harmed.

We may in the future be subject to legal proceedings and litigation relating to intellectual property disputes, which are costly and may subject us to significant liability and increased costs of doing business. Our business may suffer if it is alleged or determined that our technology infringes the intellectual property rights of others.

Our industry is characterized by the existence of a large number of patents, copyrights, trademarks, trade secrets, and other intellectual property rights. From time to time, we may be required to defend against litigation claims by other companies based on allegations of infringement or other violations of their intellectual property rights. Many of these companies have the capability to dedicate substantially greater resources than us to enforce their intellectual property rights and to defend claims that may be brought against them. Therefore, we may not be able to withstand any third-party claims or rights against their use. In addition, we may be required to defend against litigation claims by patent holding companies or other adverse patent owners that have no relevant product revenue. If a third party is able to obtain an injunction preventing us from accessing such third-party intellectual property rights, or if we cannot license or develop technology for any infringing aspect of our business, we would be forced to limit or stop selling products impacted by the claim or injunction or cease business activities covered by such intellectual property, and may be unable to compete effectively. Any inability to license third-party technology in the future would have an adverse effect on our business and operating results, and would adversely affect our ability to compete. We may also be contractually obligated to indemnify our customers in the event of infringement of a third party's intellectual property rights. We receive demands for such indemnification from time to time and expect to continue to do so. Responding to such claims, regardless of their merit, can be time consuming, costly to defend in litigation, and damage our reputation and brand.

Lawsuits are time-consuming and expensive to resolve and they divert management's time and attention. Although we carry insurance, our insurance may not cover potential claims of this type or may not be adequate to indemnify us for all liability that may be imposed. We cannot predict the outcome of lawsuits, and the results of any such actions may harm our business.

Elements of our platform and our products use open source software, which may restrict the functionality of our platform and our products, or require that we release the source code of certain products subject to those licenses.

Our platform incorporates software licensed under open source licenses. Such open source licenses typically require that source code subject to the license be made available to the public and that any modifications or derivative works to open source software continue to be licensed under open source licenses. Few courts have interpreted open source licenses, and the manner in which these licenses may be interpreted and enforced is therefore subject to some uncertainty. We rely on multiple software programmers to design our proprietary technologies, and we do not exercise complete control over the development efforts of our programmers and we cannot be certain that our programmers have not incorporated open source software into our proprietary products and technologies or that they will not do so in the future. In the event that portions of our proprietary technology are determined to be subject to an open source license, we could be required to publicly release the affected portions of our source code, re-engineer all or a portion of our technologies, or otherwise be limited in the licensing of our technologies, each of which could reduce or eliminate the value of our platform and technologies and materially and adversely affect our ability to sustain and grow our business.

Provisions in various agreements potentially expose us to substantial liability for intellectual property infringement, data protection, and other losses.

Our agreements with customers and other third parties generally include provisions under which we are liable or agree to indemnify them for losses suffered or incurred as a result of claims of intellectual property infringement, data protection, damages caused by us to property or persons, or other liabilities relating to or arising from our platform, services, or other contractual obligations. Some of these agreements provide for uncapped liability for which we would be responsible, and some provisions survive termination or expiration of the applicable agreement. Large liability payments could harm our business, results of operations, and financial condition. Although we normally contractually limit our liability with respect to such obligations, we may still incur substantial liability related to them, and in case of an intellectual property infringement indemnification claim, we may be required to cease use of certain functions of our platform as a result of any such claims. Any dispute with a customer with respect to such obligations could have adverse effects on our relationship with that customer and other existing customers and new customers and harm our business. Even when we have contractual protections against such customer claims, we may choose to honor a customer's request for indemnification or otherwise seek to maintain customer satisfaction by issuing customer credits, assisting our customer in defending against claims, or in other ways.

Risks Related to Ownership of Our Class A Common Stock

Our stock price may be volatile, and the value of our Class A common stock may decline.

Historically, our stock price has been volatile. During the year ended December 31, 2021, our stock traded as high as \$122.75 per share and as low as \$33.55 per share, and from January 1, 2022 to February 25, 2022, our stock price has ranged from \$36.61 per share to \$16.41 per share. The market price of our Class A common stock may continue to be highly volatile and may fluctuate or decline substantially as a result of a variety of factors, some of which are beyond our control or are related in complex ways, including:

- actual or anticipated fluctuations in our financial condition and operating results;
- decreased usage by one or more of our customers;
- variance in our financial performance from expectations of securities analysts or investors;
- changes in the pricing we offer our customers;
- changes in our projected operating and financial results;
- changes in laws or regulations applicable to our platform or related products;
- announcements by us or our competitors of significant business developments, acquisitions, or new offerings;
- publicity associated with network outages and problems;
- our involvement in litigation;
- changes in senior management or key personnel;
- the trading volume of our Class A common stock;
- changes in the anticipated future size and growth rate of our market; and
- general economic, regulatory, and market conditions.

Broad market and industry fluctuations, as well as general economic, political, regulatory, and market conditions, may impact the market price of our Class A common stock. For example, in connection with the COVID-19 pandemic, we initially experienced an increase in the usage of our platform, and as a result, the trading price of our Class A common stock significantly increased, and has since experienced significant volatility, along with the broader market. Following the

announcement of our results for our third and fourth quarters of 2021, the trading price of our Class A common stock significantly decreased. There are no assurances that the trading price of our Class A common stock will recover to prior levels for any period of time. Moreover, the trading price of our Class A common stock could experience a significant decrease once the scope and impact of the ongoing COVID-19 pandemic is better understood. These fluctuations could cause you to lose all or part of your investment in our Class A common stock.

In addition, extreme price and volume fluctuations in the stock markets have affected and continue to affect many technology companies' stock prices. Often, their stock prices have fluctuated in ways unrelated or disproportionate to the companies' operating performance.

In the past, companies that have experienced volatility in the market price of their securities have been subject to securities class action litigation. We may be the target of this type of litigation in the future, which could result in substantial costs and divert our management's attention.

Conversion of the Notes may dilute the ownership interest of our stockholders or may otherwise depress the price of our Class A common stock.

In March 2021, we entered into a purchase agreement for the sale of an aggregate of \$948.8 million principal amount of our 0% convertible senior notes due 2026 (the "Notes"). The conversion of some or all of the Notes may dilute the ownership interests of our stockholders. Upon conversion of the Notes, we have the option to pay or deliver, as the case may be, cash, shares of our Class A common stock, or a combination of cash and shares of our Class A common stock. If we elect to settle our conversion obligation in shares of our Class A common stock or a combination of cash and shares of our Class A common stock, any sales in the public market of our Class A common stock issuable upon such conversion could adversely affect prevailing market prices of our Class A common stock. In addition, the existence of the Notes may encourage short selling by market participants because the conversion of the Notes could be used to satisfy short positions, or anticipated conversion of the Notes into shares of our Class A common stock could depress the price of our Class A common stock.

Servicing our debt requires a significant amount of cash, and we may not have sufficient cash flow from our business to pay our substantial debt.

Our ability to make scheduled payments of the principal of, to pay interest on or to refinance our indebtedness, including the Notes, depends on our future performance, which is subject to economic, financial, competitive, and other factors beyond our control. Our business may not generate cash flow from operations in the future sufficient to service our debt, including the Notes, and make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance our indebtedness will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations.

Regulatory actions and other events may adversely affect the trading price and liquidity of the Notes.

We expect that many investors in, and potential purchasers of, the Notes will employ, or seek to employ, a convertible arbitrage strategy with respect to the Notes. Investors would typically implement such a strategy by selling short the Class A common stock underlying the Notes and dynamically adjusting their short position while continuing to hold the Notes. Investors may also implement this type of strategy by entering into swaps on our Class A common stock in lieu of or in addition to short selling the Class A common stock.

The SEC and other regulatory and self-regulatory authorities have implemented various rules and taken certain actions, and may in the future adopt additional rules and take other actions, that may impact those engaging in short selling activity involving equity securities (including our Class A common stock). Such rules and actions include Rule 201 of SEC Regulation SHO, the adoption by the Financial Industry Regulatory Authority, Inc. and the national securities exchanges of a "Limit Up-Limit Down" program, the imposition of market-wide circuit breakers that halt trading of securities for certain periods following specific market declines, and the implementation of certain regulatory reforms required by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. Any governmental or regulatory action that restricts the ability of investors in, or potential purchasers of, the Notes to effect short sales of our Class A common stock, borrow our Class A

common stock or enter into swaps on our Class A common stock could adversely affect the trading price and the liquidity of the Notes.

We may not have the ability to raise the funds necessary to repay or settle conversions of the Notes in whole or in part in cash or to repurchase the Notes upon a fundamental change, and our future debt may contain limitations on our ability to pay cash upon conversion or repurchase of the Notes.

Holders of the Notes will have the right, subject to certain conditions and limited exceptions, to require us to repurchase all or a portion of their Notes upon the occurrence of a fundamental change at a fundamental change repurchase price equal to 100% of the principal amount of the Notes to be repurchased, plus accrued and unpaid special interest, if any, as described in the indenture governing the Notes. If our stock price is lower than the conversion price of the Notes on maturity, the holders of our Notes will not convert and we will have to repay those Notes in cash. In addition, upon conversion of the Notes, unless we elect to deliver solely shares of our Class A common stock to settle such conversion (other than paying cash in lieu of delivering any fractional share), we will be required to make cash payments in respect of the Notes being converted as described in the indenture governing the Notes. However, we may not have enough available cash or be able to obtain financing at the time we are required to repay or make repurchases of Notes surrendered therefor or pay cash with respect to Notes being converted. In addition, our ability to repurchase the Notes or to pay cash upon conversions of the Notes may be limited by law, by regulatory authority or by agreements governing our future indebtedness. Our failure to repurchase notes at a time when the repurchase is required by the indenture or to pay any cash payable on future conversions of the Notes as required by the indenture would constitute a default under the indenture. A default under the indenture governing the Notes or the fundamental change itself could also lead to a default under agreements governing our future indebtedness. If the repayment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness and repurchase the Notes or make cash payments upon conversions thereof. Such acceleration could result in our bankruptcy. In a bankruptcy, the holders of the Notes would have a claim to our assets that is senior to the claims of our equity holders.

The conditional conversion feature of the Notes, if triggered, may adversely affect our financial condition and operating results.

In the event the conditional conversion feature of the Notes is triggered, holders of Notes will be entitled to convert their Notes at any time during specified periods at their option. If one or more holders elect to convert their Notes, unless we elect to satisfy our conversion obligation by delivering solely shares of our Class A common stock (other than paying cash in lieu of delivering any fractional share), we would be required to settle a portion or all of our conversion obligation through the payment of cash, which could adversely affect our liquidity. In addition, even if holders do not elect to convert their Notes, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the Notes as a current rather than long-term liability, which would result in a material reduction of our net working capital. For additional information regarding the conditional conversion feature of the Notes, see Note 9, Debt Instruments.

Future sales and issuances of our capital stock or rights to purchase capital stock could result in dilution of the percentage ownership of our stockholders and could cause the price of our Class A common stock to decline.

Future sales and issuances of our capital stock or rights to purchase our capital stock could result in substantial dilution to our existing stockholders. For example, we may issue approximately 9.2 million shares of our Class A common stock upon conversion of the Notes, subject to customary anti-dilution adjustments. We may sell Class A common stock, convertible securities, and other equity securities in one or more transactions at prices and in a manner as we may determine from time to time. If we sell any such securities in subsequent transactions, investors may be materially diluted. New investors in such subsequent transactions could gain rights, preferences, and privileges senior to those of holders of our Class A common stock.

Future sales of our Class A common stock in the public market 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 in the public market, or the perception that these sales might occur, could depress the market price of our Class A common stock and could impair our ability to raise capital through the sale of additional equity securities. We are unable to predict the effect that such sales may have on the prevailing market price of our Class A common stock.

As of December 31, 2021, we have outstanding a total of 118.9 million shares of Class A common stock. All of our outstanding shares are eligible for sale in the public market, other than shares and options held by directors, executive officers, and other affiliates that are subject to volume limitations under Rule 144 of the Securities Act, various vesting agreements, and shares that must be sold under an effective registration statement. Additionally, the shares of Class A common stock subject to outstanding options and restricted stock unit awards under our equity incentive plans and the shares reserved for future issuance under our equity incentive plans will become eligible for sale in the public market upon issuance, subject to applicable insider trading policies. The Notes will also become convertible at the option of the holders, subject to certain limitations and restrictions prior to March 15, 2026.

Future sales also could cause the trading price of our Class A common stock to decline and make it more difficult for investors to sell shares of our Class A common stock.

If securities or industry analysts do not publish research or publish unfavorable or inaccurate research about our business, our Class A common stock price and trading volume could decline.

Our stock price and trading volume are heavily influenced by the way analysts and investors interpret our financial information and other disclosures. If securities or industry analysts do not publish research or reports about our business, delay publishing reports about our business, or publish negative reports about our business, regardless of accuracy, our Class A common stock price and trading volume could decline.

The trading market for our Class A common stock depends, in part, on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. If the number of analysts that cover us declines, demand for our Class A common stock could decrease and our Class A common stock price and trading volume may decline.

Even if our Class A common stock is actively covered by analysts, we do not have any control over the analysts or the measures that analysts or investors may rely upon to forecast our future results. Over-reliance by analysts or investors on any particular metric to forecast our future results may result in forecasts that differ significantly from our own.

Regardless of accuracy, unfavorable interpretations of our financial information and other public disclosures could have a negative impact on our stock price. If our financial performance fails to meet analyst estimates, for any of the reasons discussed above or otherwise, or one or more of the analysts who cover us downgrade our Class A common stock or change their opinion of our Class A common stock, our stock price would likely decline.

We do not intend to pay dividends for the foreseeable future.

We have never declared or paid any cash dividends on our capital stock, and we do not intend to pay any cash dividends in the foreseeable future. Any determination to pay cash dividends in the future will be at the discretion of our board of directors and are restricted by the terms of our Credit Agreement. The Credit Agreement permits the payment of cash dividends so long as, after giving effect to any such dividend, we maintain a consolidated adjusted quick ratio of at least 1.50 to 1.00 and are otherwise in pro forma compliance with all covenants under the Credit Agreement. In addition, the Credit Agreement permits us to pay up to \$10.0 million in cash dividends per fiscal year so long as, after giving effect to any such dividend, we are in pro forma compliance with all covenants under the Credit Agreement, including a consolidated adjusted quick ratio of at least 1.25 to 1.00. Accordingly, investors must rely on sales of their Class A common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investments.

We incur increased costs as a result of operating as a public company, and our management is required to devote substantial time to compliance with our public company responsibilities and corporate governance practices.

As a public company, we incur significant legal, accounting, and other expenses that we did not incur as a private company. Such expenses have further increased now that we are no longer an “emerging growth company.” The Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of the NYSE, and other applicable securities rules and regulations impose various requirements on public companies. Furthermore, the senior members of our management team do not have significant experience with operating a public company. As a result, our management and

other personnel have to devote a substantial amount of time to compliance with these requirements. Moreover, these rules and regulations increase our legal and financial compliance costs and make some activities more time-consuming and costly. We cannot predict or estimate the amount of additional costs we will incur as a public company or the timing of such costs.

As a result of being a public company, we are obligated to develop and maintain proper and effective internal control over financial reporting and any failure to maintain the adequacy of these internal controls may adversely affect investor confidence in our company and, as a result, the value of our Class A common stock.

We are required, pursuant to Section 404 to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting. This assessment includes disclosure of any material weaknesses identified by our management in our internal control over financial reporting. Our independent registered public accounting firm also attests to the effectiveness of our internal control over financial reporting. Our compliance with Section 404 requires that we incur substantial accounting expense and expend significant management efforts. We currently have an internal audit group and have hired additional accounting and financial staff. We may need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge and update the system and process documentation necessary to perform the evaluation needed to comply with Section 404.

During the evaluation and testing process of our internal controls, if we fail to remediate our existing material weaknesses in our internal controls over financial reporting or if we identify new material weaknesses, we will be unable to certify that our internal controls over financial reporting is effective. We and our independent registered public accounting firm identified material weaknesses in our internal controls over financial reporting for the years ended December 31, 2021, 2020, 2019 and 2018, some of which were newly identified in the year ended December 31, 2021 and one was originally identified in prior years and remains partially unremediated for the year ended December 31, 2021. The material weaknesses related to the lack of sufficient qualified accounting resources, the lack of timely and complete identification of internal-use software costs for capitalization, and system implementation of our stock plan administration system. While we are actively working on remediating these identified weaknesses, we may discover additional material weaknesses or significant deficiencies in our internal control over financial reporting in the future. Any failure to maintain internal control over financial reporting could severely inhibit our ability to accurately report our financial condition or results of operations. If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm determines we have one or more material weaknesses or significant deficiencies in our internal control over financial reporting, we could lose investor confidence in the accuracy and completeness of our financial reports, the market price of our Class A common stock could decline and we could be subject to sanctions or investigations by the NYSE, the SEC or other regulatory authorities. Failure to remedy any material weaknesses in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict our future access to the capital markets.

Anti-takeover provisions in our charter documents, the indenture governing the Notes, and under Delaware law could make an acquisition of our company more difficult, limit attempts by our stockholders to replace or remove our current management and limit the market price of our Class A common stock.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws may have the effect of delaying or preventing a change of control or changes in our management. Our amended and restated certificate of incorporation and amended and restated bylaws include provisions that:

- authorize our board of directors to issue, without further action by the stockholders, shares of undesignated preferred stock with terms, rights, and preferences determined by our board of directors that may be senior to our Class A common stock;
- require that any action to be taken by our stockholders be effected at a duly called annual or special meeting and not by written consent;
- specify that special meetings of our stockholders can be called only by our board of directors, the chairperson of our board of directors, or our chief executive officer;
- establish an advance notice procedure for stockholder proposals to be brought before an annual meeting, including proposed nominations of persons for election to our board of directors;

- establish that our board of directors is divided into three classes, with each class serving three-year staggered terms;
- prohibit cumulative voting in the election of directors;
- provide that our directors may be removed for cause only upon the vote of the holders of a majority of our outstanding shares of common stock; and
- provide that vacancies on our board of directors may be filled only by a majority of directors then in office, even though less than a quorum.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which generally, subject to certain exceptions, prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any “interested” stockholder for a period of three years following the date on which the stockholder became an “interested” stockholder. Any delay or prevention of a change of control transaction or changes in our management could cause the market price of our Class A common stock to decline.

Certain provisions in the indenture governing the Notes may make it more difficult or expensive for a third party to acquire us. For example, the indenture governing the Notes will require us, except as described therein, to repurchase the Notes for cash upon the occurrence of a fundamental change and, in certain circumstances, to increase the conversion rate for a holder that converts its notes in connection with a make-whole fundamental change. A takeover of us may trigger the requirement that we repurchase the Notes, increase the conversion rate, or both, which could make it costlier for a potential acquirer to engage in such takeover. Such additional costs may have the effect of delaying or preventing a takeover of us that would otherwise be beneficial to investors.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware and, to the extent enforceable, the federal district courts of the United States of America will be the exclusive forums for substantially all disputes between us and our stockholders, which could limit our stockholders’ ability to obtain a favorable judicial forum for disputes with us or our directors, officers, or employees.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware is the exclusive forum for the following types of actions or proceedings under Delaware statutory or common law for:

- any derivative action or proceeding brought on our behalf;
- any action asserting a breach of fiduciary duty;
- any action asserting a claim against us arising under the Delaware General Corporation Law,
- our amended and restated certificate of incorporation, or our amended and restated bylaws; and
- any action asserting a claim against us that is governed by the internal-affairs doctrine.

This provision would not apply to suits brought to enforce a duty or liability created by the Exchange Act. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all such Securities Act actions. Accordingly, both state and federal courts have jurisdiction to entertain such claims. To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, our amended and restated certificate of incorporation provides that the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring such a claim arising under the Securities Act against us, our directors, officers, or other employees in a venue other than

in the federal district courts of the United States of America. In such instance, we would expect to vigorously assert the validity and enforceability of the exclusive forum provisions of our amended and restated certificate of incorporation. This may require significant additional costs associated with resolving the dispute in other jurisdictions, and there can be no assurance that the provisions will be enforced by a court in those other jurisdictions.

These exclusive-forum provisions 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. If a court were to find either exclusive-forum provision in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur further significant additional costs associated with resolving the dispute in other jurisdictions, all of which could harm our business.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate headquarters is located in San Francisco, California and consists of approximately 71,343 square feet of space under a lease that expires on July 31, 2027. We also maintain offices in Portland, Culver City, Denver, Pleasanton, and Tokyo. We lease all of our facilities and do not own any real property. We may add facilities as we grow our employee base and expand geographically. We believe that our facilities are sufficient to meet our needs for the immediate future, and that, should it be needed, suitable additional space will be available to accommodate expansion of our operations.

Item 3. Legal Proceedings

Please refer to Note 10—Commitments and Contingencies for discussion around our legal proceedings.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

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

Market Information

Our Class A common stock has traded on The New York Stock Exchange ("NYSE") under the symbol "FSLY" since May 17, 2019.

Holders of Record

As of December 31, 2021, there were 53 holders of record of our Class A and 0 holders of our Class B common stock. The number of beneficial stockholders is substantially greater than the number of holders of record because a large portion of our common stock is held through brokerage firms.

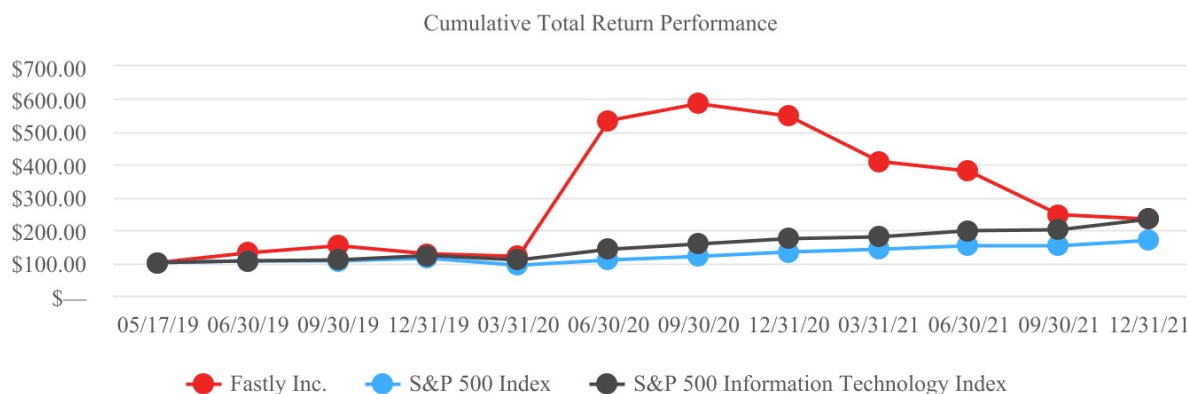
Dividend Policy

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain any future earnings and do not expect to pay any dividends in the foreseeable future. Any future determination to declare cash dividends will be made at the discretion of our Board of Directors, subject to applicable laws, and will depend on a number of factors, including our financial condition, results of operations, capital requirements, contractual restrictions, general business conditions, and other factors that our Board of Directors may deem relevant. In addition, the terms of our revolving credit facility place certain limitations on the amount of cash dividends we can pay, even if no amounts are currently outstanding.

Stock Performance Graph

This performance graph shall not be deemed "soliciting material" or to be "filed" with the Securities and Exchange Commission, or the SEC, for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or the Exchange Act, or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any of our filings under the Securities Act of 1933, as amended, or the Securities Act.

We have presented below the cumulative total return to our stockholders between May 17, 2019 (the date our Class A common stock commenced trading on the NYSE) through December 31, 2021 in comparison to the S&P 500 Index and S&P 500 Information Technology Index. The graph assumes a \$100 initial investment at the market close on May 17, 2019 which was the initial trading day of our Class A common stock, and the reinvestment of dividends. The comparisons are based on historical data and are not indicative of, nor intended to forecast, the future performance of our Class A common stock.



Unregistered Sales of Equity Securities

None.

Issuer Purchases of Equity Securities

None.

Item 6. **Reserved**

Not required.

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

You should read the following discussion and analysis of our financial condition and results of operations together with the consolidated financial statements and related notes that are included elsewhere in this Annual Report on Form 10-K. This discussion contains forward-looking statements based upon current plans, expectations, and beliefs that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth under "Risk Factors" and in other parts of this Annual Report on Form 10-K. Our fiscal year ends on December 31.

As used herein, "Fastly," "we," "our," "the Company" and similar terms include Fastly, Inc. and its subsidiaries, unless the context indicates otherwise.

Overview

Developers are reinventing the way we live, work, and play online. Yet they repeatedly encounter innovation barriers when delivering modern digital experiences. Expectations for digital experiences are at an all-time high; they must be fast, secure, and highly personalized. If they aren't reliable, end-users simply take their business elsewhere. The challenge today is enabling developers to deliver a modern digital experience while simultaneously providing scale, security, and performance. We built our edge cloud platform to solve this problem.

The edge cloud is an emerging category of Infrastructure as a Service ("IaaS") that enables developers to build, secure, and deliver digital experiences, at the edge of the internet. This service represents the convergence of the Content Delivery Network ("CDN") with functionality that has been traditionally delivered by hardware-centric appliances such as Application Delivery Controllers ("ADC"), Web Application Firewalls ("WAF"), Bot Detection, Distributed Denial of Service ("DDoS") and observability solutions. It also includes the emergence of a new, but growing, edge computing market which aims to move compute power and logic as close to the end-user as possible. The edge cloud uses the emerging cloud computing, serverless paradigm in which the cloud provider runs the server and dynamically manages the allocation of machine resources while offering flexibility and control to developers. When milliseconds matter, processing at the edge is an ideal way to handle highly dynamic and time-sensitive data. This has led to its acceptance and adoption by organizations who monetize or grow their user base with every millisecond saved. Organizations that want their websites to load faster for every user can benefit from processing at the edge. The edge cloud complements data center, central cloud, and hybrid solutions.

Our mission is to fuel the next modern digital experience by providing developers with a programmable and reliable edge cloud platform that they adopt as their own.

Organizations must keep up with complex and ever-evolving end-user requirements. We help them surpass their end-users' expectations by powering fast, secure, and scalable digital experiences. We built a powerful edge cloud platform, designed from the ground up to be programmable and support agile software development. We believe our platform gives our customers a significant competitive advantage, whether they were born into the digital age or are just embarking on their digital transformation journey. Our platform consists of four key components: a programmable edge, a software-defined modern network, safety in depth, and a philosophy of customer empowerment. Our programmable edge provides developers with real-time visibility and granular control, where they can write and deploy code in a serverless environment and to push application logic to the edge. It provides tooling and templates to deploy some of the most commonly used workflows and leverages modern application delivery processes, thus freeing developers to innovate without constraints. Our software-defined modern network is built for the software-defined future. It is powerful, efficient, and flexible, designed to enable us to rapidly scale to meet the needs of the most demanding customers and never be a barrier to their growth. Our 184 terabit software-centric network is located across 71 markets as of December 31, 2021. We define markets as unique metropolitan areas where we have one or more Points of Presence ("POPs"). Our safety in depth approach integrates security into multiple layers of development: architecture, engineering, and operations. That's why we invest in building security into the fabric of our platform, alongside performance. We provide developers and security operations teams with a fast, safe environment to create, build, and run modern applications.

Our platform provides developers and security operations teams with solutions that foster innovation without impacting performance. Finally, being developers ourselves, we empower customers to build great things while supporting their efforts through frictionless tools and a deeply technical support team that facilitates ongoing collaboration.

We serve both established enterprises, mid-market companies and technology-savvy organizations. Our customers represent a diverse set of organizations across many industries with one thing in common: they are competing by using the power of software to build differentiation at the edge. With our edge cloud platform, our customers are disrupting existing industries and creating new ones. For example, several of our customers have reinvented digital publishing by connecting readers through subscription models to indispensable content, helping people understand the world through deeply reported independent journalism. Our customers' software applications use our edge cloud platform to deliver consistently excellent online shopping experiences, fast and more secure financial transactions, and broadcast quality live streaming on any device. The range of applications that developers build with our edge cloud platform continues to expand rapidly.

So where do we go from here? Our vision is to create a trustworthy internet, where good thrives. We want all developers to have the ability to deliver the next transformative digital experience on a global scale. And because big ideas often start small, we love it when developers experiment and iterate on our edge cloud platform, coming up with exciting new ways to solve today's complex problems.

We generate substantially all of our revenue from charging our customers based on their usage of our platform. Initially, customers typically choose to become platform customers, for which we charge fees based on their committed or actual use of our platform, as measured in gigabytes and requests. Many of our customers generate billings in excess of their minimum commitment. We also generate revenue from additional products as well as professional and other services, such as implementation. We charge a flat one-time or recurring fee for these additional products and services. Beginning in the fourth quarter of 2020, we also began offering subscriptions to access a unified security web application and application programming interface at a fixed rate.

We focus our direct selling efforts on medium to large organizations as well as smaller companies that are exhibiting significant growth. We engage with and support these customers with our field sales representatives, account managers, and technical account managers who focus on customer satisfaction and drive expansion of their usage of our platform and products. These teams work with technical and business leaders to help our customers' end-users receive the best possible digital experience, while also lowering our customers' total cost of ownership.

These direct selling efforts are reflected by our 445 enterprise customers as of December 31, 2021 that generated 88% of our total revenue for the 12 months ended December 31, 2021, up from 378 enterprise customers which generated 89% of our revenue for the 12 months ended December 31, 2020. Enterprise customers are defined as customers with revenue in excess of \$100,000 over the previous 12-month period.

Our Dollar-Based Net Expansion Rate ("DBNER"), Net Retention Rate ("NRR") and Last-Twelve Months Net Retention Rate ("LTM NRR") metrics measure the revenue growth from existing customers attributable to increased usage of our platform and features, and purchase of additional products and services.

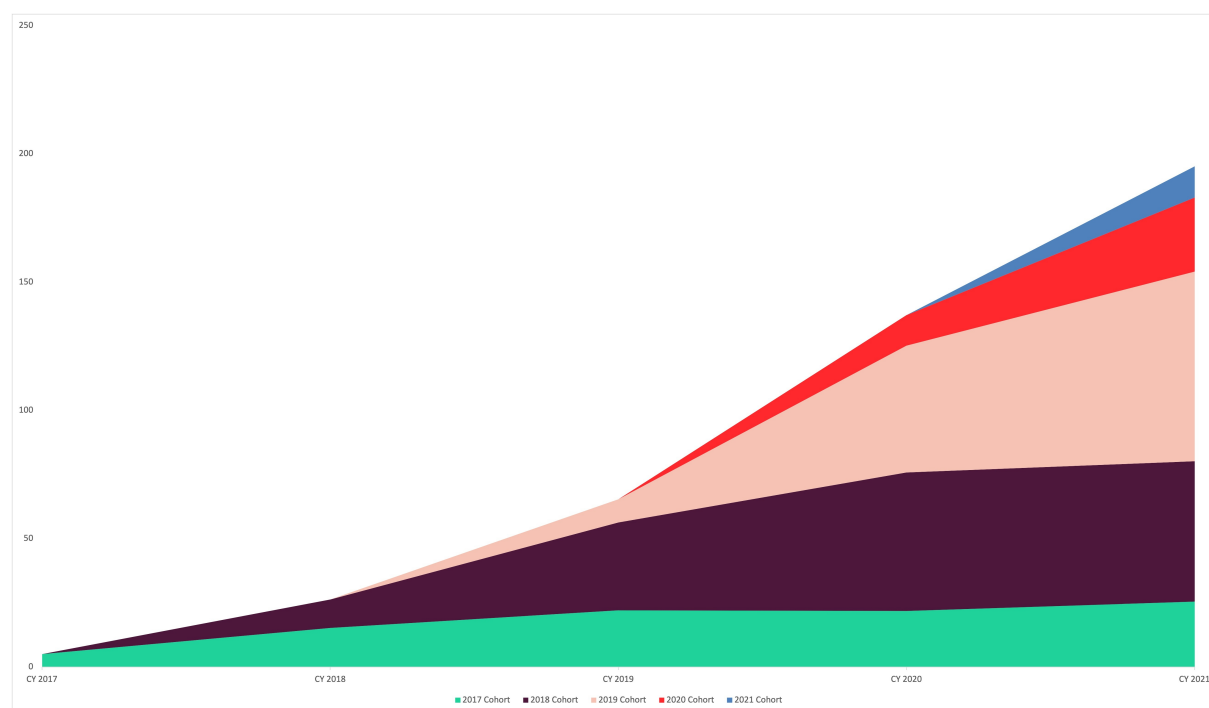
The financial results of Signal Sciences have been consolidated into our financial results and key metrics since October 1, 2020, the date of acquisition. Our DBNER was 120.9% and 143.6% for the 12 months ended December 31, 2021, and 2020, respectively. Our NRR was 106.6% and 116.3% for the twelve months ended December 31, 2021 and 2020, respectively. Our LTM NRR was 117.6% and 137.4% for the 12 months ended December 31, 2021 and 2020, respectively. We believe the LTM NRR is supplemental as it removes some of the volatility inherent in a usage-based business model from the measurement of the NRR metric.

We believe that an annual cohort analysis of Fastly's customers as depicted in the chart below, demonstrates the continued expansion of our customers' use of our platform. Once a customer begins to generate revenue for us, they tend to increase their usage of our platform, in particular in their second year. Customer accounts acquired in 2017, 2018, 2019, 2020 and 2021 are referred to as the 2017 Cohort, 2018 Cohort, 2019 Cohort, 2020 Cohort and 2021 Cohort, respectively. Our 2017 Cohort increased its revenue 2.3 times after its first year and has grown at approximately a 50% CAGR over the last four years.

In 2017, we generated \$5.6 million of revenue from the 2017 Cohort. Revenue from the 2017 Cohort grew to \$16.8 million in 2018, representing 200% year-over-year growth. In 2018, we generated \$11.2 million of revenue from the 2018 Cohort. Revenue from the 2018 Cohort grew to \$34.4 million in 2019, representing 207% year-over-year growth. In 2019, we generated \$9.1 million of revenue from the 2019 Cohort. Revenue from the 2019 Cohort grew to \$47.7 million in 2020,

representing 424% year-over-year growth. Revenue from the 2020 Cohort grew to \$28.9 million in 2021, representing 144% year-over-year growth.

Summary of Revenue Generated by Customer Cohorts Over Time (in millions):



Customers that have negotiated contracts with us generate a substantial majority of our revenue. These customers typically purchase one or more products, for which we charge a monthly recurring or one-time fee depending on the products selected. Some of these customers also choose to purchase various levels of account management and enhanced customer support for a monthly fee. Typically, the term of these contracts is 12 months and includes a minimum monthly billing commitment in exchange for more favorable pricing terms. Many of these customers generate billings in excess of their minimum commitment. In addition, customers can sign up online by providing their credit card information and agreeing to a minimum monthly fee. Beginning in the fourth quarter of 2020, we also offer subscriptions to access a unified security web application and application programming interface at a fixed rate.

The majority of our revenue is usage based and changes in usage by our largest customers can create volatility in our revenue. The length of our sales cycle, from initial evaluation to payment, can range from several months to well over a year and can vary substantially from customer to customer. Similarly, the onboarding and ramping process with new enterprise customers can take several months, as well as existing enterprise customers with new business, can take several months and can be subject to delays for unanticipated reasons. For example, we experienced delays in the ramping of new traffic due to travel and data center restrictions in South Asia that delayed network build outs and the timing of customer code freezes, each affected in part by COVID-19-related issues. The timing of new revenue from our sales efforts and changes in usage by our largest customers can make revenue difficult to predict.

For the years ended December 31, 2021 and 2020, our revenue was \$354.3 million and \$290.9 million, respectively. Our 10 largest customers generated an aggregate of 33% and 38% of our revenue in the 12 months ended December 31, 2021 and 2020, respectively. We incurred a net loss of \$222.7 million and \$95.9 million in the years ended December 31, 2021 and 2020, respectively.

Acquisition of Signal Sciences

On October 1 2020, we acquired Signal Sciences, for an aggregate purchase price of \$759.4 million, consisting of approximately \$223.0 million in cash and 6,367,709 shares of our Class A common stock, including 896,499 shares which are restricted as they are subject to revesting conditions. The aggregate purchase price reflects the value of the net shares issued, which excludes the above mentioned shares that are restricted. We also assumed all unvested and outstanding equity awards of Signal Sciences' continuing employees as converted into our equity awards at the conversion ratio provided in the Agreement and Plan of Reorganization (the "Merger Agreement"), which became options to purchase 251,754 shares of our Class A common stock, with a value of \$20.7 million related to the assumed unvested equity awards that are subject to future service conditions.

We have included Signal Sciences in our results of operations as of the acquisition date, October 1, 2020. For the year ended December 31, 2020, the information presented in this section includes the contribution of Signal Sciences starting from October 1, 2020. For the year ended December 31, 2021, the results include the contribution of Signal Sciences for the full year. As a result, comparisons to the prior-year period may not be indicative of future results or future rates of growth.

Please refer to Note 5—Business Combination for further details on the acquisition of Signal Sciences.

Adjustments subsequent to the release of earnings on February 16, 2022

Subsequent to our announcement of earnings and issuance of our press release, furnished in a Form 8-K on February 16, 2022, for the year ended December 31, 2021, we increased our Property and Equipment, net Other Current Liabilities by \$6.9 million to accrue for additional assets received at year-end but not yet paid for or financed. This increased total assets, total current liabilities, total liabilities and total liabilities and stockholders' equity by \$6.9 million. These adjustments update balances previously disclosed in our press release for the year ended December 31, 2021.

Factors Affecting Our Performance

Winning New Customers

We are focused on continuing to attract new customers. Our customer base includes both large, established enterprises that are undergoing digital transformation and emerging companies spanning a wide array of industries and verticals. In both instances, developers within these companies often use and advocate the adoption of our platform by their companies. We also benefit from word-of-mouth promotion across the broader developer community. We will continue to invest in our developer outreach, leveraging it as a cost-efficient approach to attracting new customers. With our expanded security portfolio from the acquisition of Signal Sciences, other security products, and our edge computing capabilities we will increase our focus on brand awareness, public relations and analyst relations in efforts to help generate awareness and demand for these offerings. We will continue to dedicate significant resources to sales and marketing programs, including various online marketing activities as well as targeted account-based advertising.

We are continuing to bring new innovations to our edge cloud platform and software-defined modern network architecture, and are seeing an increased interest from customers in our programmable edge computing solution. This will require us to dedicate significant resources to further develop the market for our platform and differentiate our platform from competitive products and services. We will also need to expand, retain, and motivate our sales and marketing personnel in order to target our sales efforts at larger enterprises and senior management of these potential customers.

Many jurisdictions have enacted laws on data localization and cross-border data transfers, and the evolving enforcement and interpretation of such laws has created uncertainty regarding data stored abroad and transferred across borders, which could impact customer growth and acquisition for customers and potential customers conducting business in Europe and elsewhere outside of the United States. We have encountered and may continue to encounter heightened concerns relating to privacy, data protection, and information security from customers and potential customers conducting business outside of the United States. Specifically, we have received more requests relating to EU privacy requirements, impacting the sales negotiation process, and we have had potential customers decline to do business with us due to privacy concerns related to updated interpretations of the laws applicable to transfers of personal information to the United States. For additional details, refer to "Item 1A.—Risk Factors".

Expanding within our Existing Customer Base

We emphasize retaining our customers and expanding their usage of our platform and adoption of our other products. Customers often begin with smaller deployments of one of our products and then expand their usage over time. Our platform includes a variety of offerings, such as load balancing, shielding, web security, and WAF. As our customers mature, we assist them in expanding their use of our platform, including the use of additional offerings beyond edge cloud delivery or security. As enterprises grow and experience increased traffic, their needs evolve, leading them to find additional use cases for our platform and expand their usage accordingly. In addition, given that customer acquisition costs are incurred largely for acquiring and initial onboarding, we gain operating leverage to the extent that existing customers expand their use of our platform and products.

Our ability to retain our customers and expand their usage could be impaired for a variety of reasons, including a customer moving to another provider or reducing usage within the term of their contract to their minimum usage commitment. Even if our customers expand their usage of our platform, we cannot guarantee that they will maintain those usage levels for any meaningful period of time or that they will renew their commitments.

The data localization and cross-border data transfer issues described above also impact current customers' increased usage of our products and services. In addition, we cannot be certain what actions the United States or another country's government may take with respect to certain of our customers that may adversely affect our ability to do business with our customers that operate in China, target China as a market or that have strong business ties to China. For example, our largest customer during the year ended December 31, 2020 had strong business ties to China and significantly reduced its usage of our platform. We believe this was in response to various actions taken by the United States and other governments against them. Further reductions in this customer's traffic levels could have an additional negative impact on our business.

For additional details, refer to "Item 1A.—Risk Factors".

International Customer Growth

We intend to continue expanding our efforts to attract customers outside of the United States by augmenting our sales teams and strategically increasing our presence in the number of markets in select international locations. As of December 31, 2021, our edge network spans across 51 markets and 31 countries that are outside of the United States. As of December 31, 2020, our edge network spans across 40 markets and 25 countries that are outside of the United States.

Our international expansion, including our global sales efforts, continues to add increased complexity and cost to our business. This requires us to expand our sales and marketing capabilities outside of the United States, as well as increase the number of markets we have a presence in around the world to support our customers. Managing the administrative aspects of a global organization places a strain on our business and culture.

Investing in Sales and Marketing

Our customers have been pivotal in driving brand awareness and broadening our reach. While we continue to leverage our self-service approach to drive adoption by developers, we will continue to expand our sales and marketing efforts, with an increased focus on sales to enterprises globally. Utilizing our direct sales force, we have multiple selling points within organizations to acquire new customers and increase usage from our existing customers. We will continue to increase our discretionary marketing spend, including account based and brand spend, to drive the effectiveness of our sales teams. As a result, we expect our total operating expenses to increase as we continue to expand. Our investments in our sales and marketing teams are intended to help accelerate our sales, onboarding, and ramp cycles.

These efforts will require us to invest significantly in financial and other resources. Furthermore, we believe that there is significant competition for sales personnel with the skills and technical knowledge that we require. Our ability to achieve significant revenue growth will depend, in large part, on our success in recruiting, training, and retaining sufficient numbers of sales personnel to support our growth.

Continued Investment in Our Platform and Network Infrastructure

We must continue to invest in our platform and network infrastructure to maintain our position in the market. We expect our revenue growth to be dependent on an expanding customer base and continued adoption of our edge cloud delivery, security, and other products and services. In anticipation of winning new customers and staying ahead of our customers' needs, we plan to continue to invest in order to expand the scale and capacity of our software-defined modern network, resulting in increased network service provider fees, which could adversely affect our gross margins if we are unable to offset these costs with revenue from new customers and increase revenue from existing customers. Our customers require constant innovation within their own organizations and expect the same from us. Therefore, we will continue to invest in resources to enhance our development capabilities and introduce new products and features on our platform. We believe that investment in research and development will contribute to our long-term growth but may also negatively impact our short-term profitability. For the years ended December 31, 2021 and 2020, our research and development expenses as a percentage of revenue was 36% and 26%, respectively. We may also seek to acquire or invest in businesses, products, or technologies that we believe could complement or expand our platform, enhance our technical capabilities, or otherwise offer growth opportunities. For example, on October 1, 2020, we acquired Signal Sciences, a security software company that provides protection from web, API, and mobile security threats.

Developers use our platform to build custom applications and require a state-of-the-art infrastructure to test and run these applications. We will continue to invest in our network infrastructure by strategically increasing our POPs. We also anticipate making investments in upgrading our technology and hardware to continue providing our customers a fast and secure platform. Our cash additions for investments in property and equipment for the years ended December 31, 2021 and 2020 were \$48.6 million and \$49.0 million, respectively, representing 14% and 17% of our revenue in such periods. We expect our investment in property and equipment to increase on an absolute basis and may increase as a percentage of revenue in future periods. Our gross margins and operating results are impacted by these investments. As of December 31, 2021, our network is located in 71 markets across 32 countries.

In the event that there are errors in software, failures of hardware, damages to a facility or misconfigurations of any of our services—whether caused by our own error, security breaches, third-party error, or natural disasters—we could experience lengthy interruptions in our platform as well as delays and additional expenses in arranging new facilities and services. In addition, there can be no assurance that we are adequately prepared for unexpected increases in bandwidth demands by our customers, particularly when customers experience cyber-attacks. The bandwidth we have contracted to purchase may become unavailable for a variety of reasons, including service outages, payment disputes, network providers going out of business, natural disasters, networks imposing traffic limits, or governments adopting regulations that impact network operations.

Uncertainty of the Coronavirus (COVID-19) Pandemic

The ongoing global COVID-19 pandemic has adversely impacted, and may continue to adversely impact, many aspects of our business. As certain of our customers or potential customers experience downturns or uncertainty in their own business operations and revenue resulting from the spread of COVID-19, they have and may continue to decrease or delay their technology spending, request pricing concessions or payment extensions, or seek renegotiation of their contracts. In addition, a portion of our revenue is related to usage of our platform in connection with live events, such as sporting events, that have continued to be impacted. Usage of our platform fluctuated following the implementation of preventative measures to contain or mitigate the outbreak of COVID-19, and we cannot predict how usage levels will continue to be impacted by these preventative measures. There is no assurance that customers will continue to use our platform, or to the same extent, as the COVID-19 pandemic begins to taper off or when it has ended. As a result, it has been difficult to accurately forecast our revenues or financial results, especially given that the near and long term impacts of the pandemic remain uncertain. Our results of operations could be materially below our forecasts, which could adversely affect our results of operations, disappoint analysts and investors, or cause our stock price to decline.

In response to the COVID-19 pandemic, many state, local, and foreign governments have put in place restrictions in order to control the spread of the disease. Such restrictions, or the perception that further restrictions could occur, have resulted in business closures, work stoppages, slowdowns and delays, work-from-home policies, travel restrictions, and cancellation or postponement of events, among other effects that impacted productivity and disrupted our operations and those of our partners and customers. For example, we experienced delays in the ramping of new traffic due to travel and data center restrictions in South Asia that delayed network build outs and the timing of customer code freezes, each affected in part due to COVID-19-related issues. In addition, our suppliers have been impacted by the COVID-19 pandemic, which has reduced the availability of or

resulted in delays, and may continue to reduce the availability or result in delays, of parts and components to us. Our offices have remained temporarily closed since March 2020, and we have taken other precautionary measures, such as instituting protocols and guidelines for Fastly-related travel and shifting to hosting virtual Fastly-sponsored events in lieu of in-person events. We may take further actions that alter our operations as may be required by federal, state, or local authorities, or which we determine are in our best interests. While much of our operations can be performed remotely, certain activities such as expanding and maintaining our network of POPs around the world often require personnel to be on-site, and our ability to carry out these activities has been, and may continue to be, negatively impacted if our employees or local data center personnel are not able to travel. In addition, travel restrictions have affected our ability to conduct audits of our data centers and facilities, requiring us to use alternative procedures to the standard on-site visit. Any inability to complete these audits could affect our compliance certifications and cause customers to reduce or cease using our services. In addition, for activities that may be conducted remotely, there is no guarantee that we will be as effective while working remotely because our team is dispersed and many employees and their families have been negatively affected, mentally or physically, by the COVID-19 pandemic. Decreased effectiveness and availability of our team could adversely affect our results due to slow-downs in our sales cycles and our customer ramping and onboarding process, delays in recruiting and onboarding efforts, delays in our entry into customer contracts, delays in addressing performance issues, delays in product development, delays and inefficiencies among various operational aspects of our business, including our financial organization, or other decreases in productivity that could seriously harm our business. Moreover, our finance organization's ability to ensure that we comply with the requirements of Section 404 may be impaired in the future, including the ability of our registered public accounting firm to issue an attestation report on management's assessment of our internal control over financial reporting. Furthermore, we may decide to postpone or cancel planned investments in our business in response to changes in our business as a result of the spread of COVID-19, which may impact our ability to attract and retain customers and our rate of innovation, either of which could harm our business.

In addition, while the potential impact and duration of the COVID-19 pandemic on the global economy and our business in particular may be difficult to assess or predict, the pandemic has resulted in, and may continue to result in, significant disruption of global financial markets, and may reduce our ability to access additional capital, which could negatively affect our liquidity in the future.

The ultimate duration and extent of the impact from the COVID-19 pandemic depends on future developments that cannot be accurately forecasted at this time. These developments include the severity and transmission rate of the disease, the emergence of new variants, the actions of governments, businesses and individuals in response to the pandemic, the extent and effectiveness of containment actions and vaccines, the impact on economic activity and the impact of these and other factors. We do not yet know how businesses, customers, or our partners will operate in a post COVID-19 environment. There may be additional costs or impacts to our business and operations, including when we are able to return to our offices and resume in-person activities, travel, and events. In addition, there is no guarantee that a future outbreak of this or any other widespread epidemics will not occur, or that the global economy will recover, either of which could harm our business.

For additional details, refer to our risk factors included in Part I. Item 1A. of this Annual Report on Form 10-K.

Key Business Metrics

We regularly review a number of metrics, including the key metrics presented in the table below, to evaluate our business, measure our performance, identify trends affecting our business, prepare financial projections, and make strategic decisions. The calculation of the key metrics and other measures discussed below may differ from other similarly titled metrics used by other companies, securities analysts, or investors. Certain of our key metrics and financial results were favorably impacted by increases in traffic driven by the COVID-19 pandemic and our largest customer in 2020. In 2021, we saw some return to normal seasonal patterns of traffic and growth and an impact to our revenue from an outage in June 2021. We have

included Signal Sciences in our results of operations as of the acquisition date, October 1, 2020. For the year ended December 31, 2021, the results include the contribution of Signal Sciences for the full year.

	As of December 31,	
	2021	2020
Number of customers (as of end of period)	2,804	2,326
Number of enterprise customers (as of end of period)	445	378
Dollar-Based Net Expansion Rate ("DBNER") (12 months)	120.9%	143.6%
NRR (as of end of period)	106.6%	116.3%
LTM NRR	117.6%	137.4%

Number of Customers

We believe that the number of customers is an important indicator of the adoption of our platform. Our definition of a customer consists of identifiable operating entities with which we have a billing relationship in good standing, from which we recognized revenue during the period. An identifiable operating entity is defined as a company, a government entity, or a distinct business unit of a larger company that has a relationship with Fastly through direct sale or through one of our reseller partners where charges are identified on an end-customer basis. In cases where charges are identified through a reseller partner rather than on an end-customer basis, we record a single customer record for the reseller partner. Our customer groupings may be impacted by changes to our customers' business, including any impact from merger and acquisition activities, internal business reorganizations leading to operational and decision making changes, and corporate structure changes such as subsidiary consolidation and reorganization that may arise in the future. In addition to our paying customers, we also have trial, developer, nonprofit and open source programs, and other non-paying accounts that are excluded from our customer count metric. As of December 31, 2021 and 2020, we had 2,804 and 2,326 customers, respectively.

Number of Enterprise Customers

Historically our revenue has been driven primarily by a subset of customers who have leveraged our platform substantially from a usage standpoint. These enterprise customers are defined as customers with revenue in excess of \$100,000 over the previous 12-month period. As of December 31, 2021, we had 445 enterprise customers which generated 88% of our revenue for the 12 months ended December 31, 2021. As of December 31, 2020, we had 378 enterprise customers which generated 89% of our revenue for the 12 months ended December 31, 2020. We believe the recruitment and cultivation of enterprise customers is critical to our long-term success.

Dollar-Based Net Expansion Rate ("DBNER")

Our ability to generate and increase our revenue is dependent upon our ability to increase the number of new customers and usage of our edge cloud delivery platform, security, and other products and services by our existing customers. We track our growth, in part, by measuring DBNER. Our DBNER increases when customers increase their usage of our platform or purchase additional products, and declines when they reduce their usage, benefit from lower pricing on their existing usage, or curtail their purchases of additional products. We believe DBNER is a key metric in measuring the long-term value of our customer relationships and our ability to grow our revenue through increased usage of our edge cloud delivery platform, security, and purchase of additional products and services by our existing customers. However, our calculation of DBNER indicates only expansion among continuing customers and does not indicate any decrease in revenue attributable to former customers, which may differ from similar metrics of other companies.

We calculate DBNER by dividing the revenue for a given period from customers who remained customers as of the last day of the given period ("current period") by the revenue from the same customers for the same period measured one year prior ("base period"). The revenue included in the current period excludes revenue from (i) customers that churned after the end of the base period and (ii) new customers that entered into a customer agreement after the end of the base period. For example, to calculate our DBNER for the 12 months ended December 31, 2021, we divide (i) revenue for the 12 months ended December 31, 2021, from customers that entered into a customer agreement prior to January 1, 2020, and that remained customers as of December 31, 2021, by (ii) revenue for the 12 months ended December 31, 2020 from the same set of customers.

For the 12 months ended December 31, 2021 and 2020 our DBNER was 120.9% and 143.6%, respectively. We believe that an annual cohort analysis of our customers demonstrates customer expansion. Once a customer begins to generate revenue for us, they tend to increase their usage of our platform, in particular in their second year. Customer accounts acquired in 2019, 2020, and 2021 are referred to as the 2019 Cohort, 2020 Cohort, and 2021 Cohort, respectively. As described above, our customers tend to increase their usage of our platform in their second year, which is typically followed by more modest increases in usage, if any, in ensuing years. For example, the DBNER for the 2019 Cohort was 580.8% for the year ended December 31, 2020. However, the DBNER for the 2019 Cohort was 150.8% for the year ended December 31, 2021, which generally represents their third year as a customer, depending on when they entered into a customer agreement. DBNER may fluctuate from quarter to quarter based on, among other things, the timing associated with new customer accounts. We expect our DBNER for individual cohorts to decrease once customers in that cohort have used our platform for more than two years and become a larger portion of both our overall customer base and the revenue that we use to calculate DBNER.

We separately monitor customer retention and churn on an annual basis by measuring our annual revenue retention rate, which we calculate by multiplying the final full month of revenue from a customer that terminated its contract with us (a "Churned Customer") by the number of months remaining in the same calendar year ("Annual Revenue Churn"). The quotient of the Annual Revenue Churn from all of our Churned Customers divided by our annual revenue of the same calendar year is then subtracted from 100% to determine our annual revenue retention rate. We believe this calculation is helpful in that it is based on the amount of revenue that we would expect to have received in the remaining portion of a particular period had a customer not terminated its contract with us. It is not indicative of the actual revenue contribution from churned customers in past periods. By comparing this amount to actual revenue for the period, we are able to assess our ability to replace terminated revenue by generating revenue from new and continuing customers. Our annual revenue retention rate for the years ended December 31, 2021 and 2020 was 99.2% and 99.3%, respectively.

Net Retention Rate ("NRR") and Last-Twelve Months Net Retention Rate ("LTM NRR")

Our ability to generate and increase our revenue is also dependent upon our ability to retain our existing customers. In addition to measuring expansion using DBNER, NRR and LTM NRR also allow us to track customer retention which demonstrates the stickiness of our edge cloud platform.

Our NRR measures the net change in monthly revenue from existing customers in the last month of the period (the "current" period month) compared to the last month of the same period one year prior (the "prior" period month) and includes revenue contraction due to billing decreases or customer churn, revenue expansion due to billing increases, but excludes revenue from new customers. We calculate Net Retention Rate by dividing the revenue from the current period month by the revenue in the prior period month. For the last month of the years ended December 31, 2021 and 2020 our NRR was 106.6% and 116.3%, respectively.

Our LTM NRR is intended to be supplemental to our NRR as we believe that it removes some of the volatility that is inherent in a usage-based business model. We calculate LTM NRR by dividing the total customer revenue for the prior twelve-month period ("prior 12-month period") ending at the beginning of the last twelve-month period ("LTM period") minus revenue contraction due to billing decreases or customer churn, plus revenue expansion due to billing increases during the LTM period from the same customers by the total prior 12-month period revenue. For the last month of the years ended December 31, 2021 and 2020 our LTM NRR was 117.6% and 137.4%, respectively.

Key Components of Statement of Operations

Revenue

We derive our revenue primarily from usage-based fees earned from customers using our platform. We also earn fixed-rate recurring revenue from security and other products and services.

Our usage-based fees earned from customers using our platform are generally billed in arrears. Our security products are primarily annual subscriptions that are billed in advance. Many customers have tiered usage pricing which reflects discounted rates as usage increases. For most contracts, usage charges are determined on a monthly basis based on actual usage within the month and do not impact usage charges within any other month. Our larger customers often enter into contracts that contain minimum billing commitments and reflect discounted pricing associated with such usage levels.

We define United States revenue as revenue from customers that have a billing address in the United States, and we define international revenue as revenue from customers that have a billing address outside of the United States.

Cost of Revenue and Gross Margin

Cost of revenue consists primarily of fees paid for bandwidth, peering, and colocation. Cost of revenue also includes personnel costs, such as salaries, benefits, bonuses, and stock-based compensation for our customer support and infrastructure employees, and non-personnel costs, such as amortization of capitalized internal-use software development costs, depreciation of our network equipment and amortization of our intangible assets. Our arrangements with network service providers require us to pay fees based on bandwidth use, in some cases subject to minimum commitments, which may be underutilized. We expect our cost of revenue to continue to increase on an absolute basis and may increase as a percentage of revenue.

Our gross margin has been and will continue to be affected by a number of factors, including utilization of our network, the timing of investments in the expansion of our network, which can increase depreciation and colocation costs in advance of expected demand, our ability to manage our network service providers and cloud infrastructure-related fees, the timing of amortization of capitalized software development costs, changes in personnel costs to provide customer support and operate the network, and customer pricing.

Research and Development

Research and development expenses consist primarily of personnel costs, including salaries, benefits, bonuses, and stock-based compensation. Research and development expenses also include cloud infrastructure fees for development and testing, and an allocation of our general overhead expenses. We capitalize the portion of our software development costs that meet the criteria for capitalization.

We continue to focus our research and development efforts on adding new features and products including new use cases, improving the efficiency and performance of our network, and increasing the functionality of our existing products. Over the long term we expect our research and development expenses to decrease as a percentage of our revenue. However, our research and development expenses may fluctuate as a percentage of our revenue from period to period due to the timing and extent of these expenses.

Sales and Marketing

Sales and marketing expenses consist primarily of personnel costs, including commissions for our sales employees, salaries, benefits, bonuses, and stock-based compensation. Sales and marketing expenses also include expenditures related to advertising, marketing, our brand awareness activities, costs related to our customer conferences, including our Altitude conference, professional services fees, amortization of our intangible assets and an allocation of our general overhead expenses.

We focus our sales and marketing efforts on generating awareness of our company, platform and products, creating sales leads, and establishing and promoting our brand, both domestically and internationally. We plan to increase our investment in sales and marketing by hiring additional sales and marketing personnel, expanding our sales channels, driving our go-to-market strategies, building our brand awareness, and sponsoring additional marketing events. Over the long term, we expect our sales and marketing expenses to decrease as a percentage of our revenue. However, our sales and marketing expenses may fluctuate as a percentage of our revenue from period to period due to the timing and extent of these expenses.

General and Administrative

General and administrative expenses consist primarily of personnel costs, including salaries, benefits, bonuses, and stock-based compensation for our accounting, finance, legal, trust, human resources and administrative support personnel, and executives. General and administrative expenses also include costs related to legal and other professional services fees, sales and other taxes, an allocation of our general overhead expenses, credit loss expense and acquisition-related costs. We expect that we will incur costs associated with supporting the growth of our business, our operation as a public company, and to meet the increased compliance requirements associated with our international expansion.

Our general and administrative expenses include a significant amount of sales and other taxes to which we are subject based on the manner we sell and deliver our products. Historically, we have not collected such taxes from our customers and

have therefore recorded such taxes as general and administrative expenses. We expect that these expenses will decline in future years as we continue to implement our sales tax collection mechanisms and start collecting these taxes from our customers.

Overall, we expect our general and administrative expenses to continue to increase on an absolute basis and may increase as a percentage of revenue in future periods. Over the long term, we expect our general and administrative expenses to decrease as a percentage of our revenue.

Income Taxes

Our income tax expense consists primarily of income taxes in certain foreign jurisdictions where we conduct business and state minimum income taxes in the United States. In 2020, our income tax benefit was primarily the result of a reduction in the valuation allowance recorded against our net deferred tax assets. In connection with the acquisition of Signal Science in 2020, we recorded a net deferred tax liability which provides an additional source of taxable income to support the realization of the pre-existing deferred tax assets. We have a valuation allowance for deferred tax assets, including net operating loss carryforwards. We expect to maintain this valuation allowance for the foreseeable future.

Results of Operations

In this section, we discuss the results of our operations for the year ended December 31, 2021 compared to the year ended December 31, 2020. For a discussion of the year ended December 31, 2020 compared to the year ended December 31, 2019, please refer to Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the year ended December 31, 2020. Certain of our key metrics and financial results were favorably impacted by increases in traffic driven by the COVID-19 pandemic and our largest customer in 2020. In 2021, we saw some return to normal seasonal patterns of traffic and growth and an impact to our revenues from an outage in June 2021. We have included Signal Sciences in our results of operations as of the acquisition date, October 1, 2020. For the year ended December 31, 2020, the information presented in this section includes the contribution of Signal Sciences starting from October 1, 2020. For the year ended December 31, 2021, the results include the contribution of Signal Sciences for the full year. As a result, comparisons to the prior-year period may not be indicative of future results or future rates of growth.

	Year ended December 31,	
	2021	2020
	(in thousands)	
Consolidated Statement of Operations:		
Revenue	\$ 354,330	\$ 290,874
Cost of revenue ⁽¹⁾	167,002	120,007
Gross profit	187,328	170,867
Operating expenses:		
Research and development ⁽¹⁾	126,859	74,814
Sales and marketing ⁽¹⁾	152,645	101,181
General and administrative ⁽¹⁾	126,845	102,084
Total operating expenses	406,349	278,079
Loss from operations	(219,021)	(107,212)
Interest income	1,282	1,628
Interest expense	(5,245)	(1,549)
Other income (expense), net	356	(279)
Loss before income tax expense (benefit)	(222,628)	(107,412)
Income tax expense (benefit)	69	(11,480)
Net loss attributable to common stockholders	\$ (222,697)	\$ (95,932)

(1) Includes stock-based compensation expense as follows:

	Year ended December 31,	
	2021	2020
	(in thousands)	
Cost of revenue	\$ 7,227	\$ 3,889
Research and development	47,019	17,112
Sales and marketing	31,159	17,028
General and administrative	55,083	26,404
Total	<u>\$ 140,488</u>	<u>\$ 64,433</u>

	Year ended December 31,	
	2021	2020
Consolidated Statements of Operations, as a percentage of revenue:*		
Revenue	100 %	100 %
Cost of revenue	<u>47</u>	<u>41</u>
Gross profit	<u>53</u>	<u>59</u>
Operating expenses:		
Research and development	36	26
Sales and marketing	43	35
General and administrative	36	35
Total operating expenses	<u>115</u>	<u>96</u>
Loss from operations	(62)	(37)
Interest income	—	1
Interest expense	(1)	(1)
Other income (expense), net	—	—
Loss before income taxes	(63)	(37)
Income tax expense (benefit)	<u>—</u>	<u>(4)</u>
Net loss attributable to common stockholders	<u>(63)%</u>	<u>(33)%</u>

* Columns may not add up to 100% due to rounding.

Revenue

	Year ended December 31,		2020 to 2021 Change
	2021	2020	
	(in thousands)		
Revenue	\$ 354,330	\$ 290,874	22 %

2021 compared to 2020

Revenue was \$354.3 million for the year ended December 31, 2021 compared to \$290.9 million for the year ended December 31, 2020, an increase of \$63.5 million, or 22%. Revenue growth was driven by impact of a full year of revenue generated from products acquired from the acquisition of Signal Sciences, which increased by \$31.7 million before considering the effect of purchase accounting adjustments, and the further adoption of our modern edge platform and products. Revenue growth was offset by a \$4.2 million impact of purchase price accounting adjustments, which represents a \$2.2 million increase from 2020.

We had 2,804 customers and 445 enterprise customers as of December 31, 2021. We had 2,326 customers and 378 enterprise customers as of December 31, 2020. This represents an increase of 478, or 21%, in customers and 67, or 18%, in enterprise customers from December 31, 2020.

Approximately 93% of our revenue in the year ended December 31, 2021 was driven by usage on our platform, primarily from existing customers, as revenue from new customers contributed less than 10% of our revenue. The proportion of the revenue contribution between new and existing customers is consistent with typical customer behavior as customers tend to contribute more revenue over time as their use of the platform increases. The remainder of our revenue was generated by our other products and services, including support and professional services.

United States revenue was \$260.4 million and 73% of revenue for the year ended December 31, 2021, and \$196.5 million and 68% of revenue for the year ended December 31, 2020. This represents an increase of \$63.9 million, or 32%. International revenue was \$93.9 million and 27% of revenue for the year ended December 31, 2021, and \$94.3 million and 32% of revenue for the year ended December 31, 2020. This represents an increase of \$(0.4) million, or 0%.

We had 2,111 domestic customers and 691 international customers as of December 31, 2021.

Cost of Revenue

	Year ended December 31,		2020 to 2021 Change	
	2021	2020		
	(in thousands)			
Cost of revenue	\$ 167,002	\$ 120,007	39	%

2021 compared to 2020

Cost of revenue was \$167.0 million for the year ended December 31, 2021 compared to \$120.0 million for the year ended December 31, 2020, an increase of \$47.0 million, or 39%. This is primarily due to an increase in bandwidth costs of \$11.1 million, an increase in colocation costs of \$6.4 million, and an increase in other network costs of \$5.4 million to support the increased traffic on our platform. There was an increase in depreciation and amortization expense of \$17.0 million as we continue to invest in our platform, which includes a \$7.5 million increase in amortization of intangible assets acquired from the Signal Sciences acquisition. There was also a \$7.9 million increase in personnel related costs, such as salaries, benefits, bonuses, and stock-based compensation, due to the increased headcount to support the growth of our business.

Gross Profit and Gross Margin

	Year ended December 31,		2020 to 2021 Change	
	2021	2020		
	(in thousands)			
Gross profit	\$ 187,328	\$ 170,867	10	%
Gross margin	53 %	59 %	(6)	%

2021 compared to 2020

Gross profit was \$187.3 million for the year ended December 31, 2021 compared to \$170.9 million for the year ended December 31, 2020, an increase of \$16.5 million, or 10%. Gross margin was 53% for the year ended December 31, 2021 compared to 59% for the year ended December 31, 2020, an decrease of 6%. The decrease in gross margin reflects a decrease in network utilization in 2021 compared to 2020 related to increased traffic in 2020 driven by the COVID-19 pandemic and the company's largest customer in 2020 and the impact of an increase in investment in infrastructure and capacity made in advance of expected demand. The decline in gross margin also reflects the impact of an increase of \$2.2 million of revenue reductions for purchase accounting adjustments and additional \$7.5 million of amortization of intangible assets related to our acquisition of Signal Sciences. The impact of these adjustments was a reduction in gross margin of 2.7%.

Operating Expenses

	Year ended December 31,		2020 to 2021 Change
	2021	2020	
	(in thousands)		
Research and development	\$ 126,859	\$ 74,814	70 %
Sales and marketing	152,645	101,181	51 %
General and administrative	126,845	102,084	24 %
Total operating expenses	\$ 406,349	\$ 278,079	46 %
Percentage of revenue:			
Research and development	36 %	26 %	(10)%
Sales and marketing	43 %	35 %	(8)%
General and administrative	36 %	35 %	(1)%

Research and development—2021 compared to 2020

Research and development expenses were \$126.9 million for the year ended December 31, 2021 compared to \$74.8 million for the year ended December 31, 2020, an increase of \$52.0 million, or 70%. This is primarily due to an increase of \$56.1 million of personnel-related costs, such as salaries, benefits, bonuses, and stock-based compensation due to an increase in headcount and new equity awards granted to employees. The increase in personnel-related costs was primarily driven by the impact of a full year of Signal Sciences expenses. There was also an increase of \$3.6 million in hosted data service and other SaaS costs as we continue to develop new products and features for our next-generation edge computing solutions. These increases are partially offset by a \$9.6 million increase in capitalization of costs related to the development of internal-use software.

Sales and marketing—2021 compared to 2020

Sales and marketing expenses were \$152.6 million for the year ended December 31, 2021 compared to \$101.2 million for the year ended December 31, 2020, an increase of \$51.5 million, or 51%. This is primarily due to a \$33.1 million increase in personnel related costs, such as salaries, sales commissions, benefits, and stock-based compensation, due to an increase in headcount and new equity awards granted to employees. The increase in personnel-related costs was primarily driven by the impact of a full year of Signal Sciences expenses. We also had an increase of \$8.4 million in external marketing spend primarily related to various marketing campaigns and an increase of \$8.3 million in amortization expense related to certain intangible assets acquired in connection with the Signal Sciences acquisition.

General and administrative—2021 compared to 2020

General and administrative costs were \$126.8 million for the year ended December 31, 2021 compared to \$102.1 million for the year ended December 31, 2020, an increase of \$24.8 million, or 24%. This is primarily due to an increase of \$36.1 million in personnel related costs, such as salaries, benefits, and stock-based compensation due to an increase in headcount and new equity awards granted to employees, increases of \$1.6 million in software licenses, and \$1.3 million in business insurance costs. These increases are partially offset by a \$13.4 million decrease in professional services spending primarily driven by a decrease in acquisition-related expenses of \$16.9 million, and a \$1.5 million decrease in expense for credit losses.

Other Income and Expense**Interest Income**

	Year ended December 31,		2020 to 2021 Change	
	2021	2020		
	(in thousands)			
Interest income	\$ 1,282	\$ 1,628	(21)	%

2021 compared to 2020

Interest income was \$1.3 million for the year ended December 31, 2021 compared to \$1.6 million for the year ended December 31, 2020, a decrease of \$0.3 million, or 21%. This decrease is due to a reduction in interest rates on our cash balances and investments portfolio.

Interest Expense

	Year ended December 31,		2020 to 2021 Change	
	2021	2020		
	(in thousands)			
Interest expense	\$ 5,245	\$ 1,549	239	%

2021 compared to 2020

Interest expense was \$5.2 million for the year ended December 31, 2021 compared to \$1.5 million for the year ended December 31, 2020, an increase of \$3.7 million, or 239%. This increase is primarily due the amortization of debt issuance costs related to the convertible debt and revolving credit facility.

Other income(expense), net

	Year ended December 31,		2020 to 2021 Change	
	2021	2020		
	(in thousands)			
Other income (expense), net	\$ 356	\$ (279)	228	%

2021 compared to 2020

Other income, net was \$0.4 million for the year ended December 31, 2021 compared to other expense, net, of \$0.3 million for the year ended December 31, 2020, a change of \$0.6 million, or 228%. The increase is mainly driven by our foreign currency transaction gains and losses between the periods.

Income Tax Expense (Benefit)

	Year ended December 31,		2020 to 2021 Change	
	2021	2020		
	(in thousands)			
Income tax expense (benefit)	\$ 69	\$ (11,480)	(101)	%

2021 compared to 2020

Income tax expense was 0.1 million for the year ended December 31, 2021 compared to income tax benefit of for the year ended December 31, 2020, a decrease of \$11.6 million or 101% decrease is primarily due to a one-time tax benefit from the reduction in our valuation allowance recorded against our net deferred tax assets. In connection with the acquisition of Signal Science, we recorded a net deferred tax liability which provides an additional source of taxable income to support the realization of the pre-existing deferred tax assets. As a result a portion of our valuation allowance was released and we recorded a \$13.0 million tax benefit in the year ended December 31, 2020.

Liquidity and Capital Resources

As of December 31, 2021, we had cash, cash equivalents, and marketable securities totaling \$1,056.8 million. Our cash, cash equivalents, and marketable securities primarily consisted of bank deposits and money market funds held at major financial institutions and investment-grade commercial paper and corporate debt securities. As of December 31, 2021, we had \$528.9 million of marketable securities classified as long term investments.

On May 21, 2019, upon the completion of our IPO, we received net proceeds of \$192.5 million, after deducting underwriting discounts and commissions, from sales of 12,937,500 shares of our Class A common stock in the IPO. The net proceeds include additional proceeds of \$25.1 million, net of underwriters' discounts and commissions, from the exercise of the underwriters' option to purchase an additional 1,687,500 shares of our Class A common stock.

On May 26, 2020, we completed a follow-on public offering in which we sold 6,900,000 shares of Class A common stock, which included 900,000 shares sold pursuant to the exercise by the underwriters of an option to purchase additional shares, at the public offering price of \$41.50 per share. We received net proceeds of \$274.9 million, after deducting underwriting discounts and commissions, from sales of our shares in the public offering.

In March 2021, we entered into a purchase agreement for the sale of an aggregate of \$948.8 million principal amount of our 0% convertible senior notes due 2026 (the "Notes"). The Notes mature on March 25, 2026, unless earlier converted, redeemed or repurchased. The net proceeds from the issuance of the Notes were approximately \$930.0 million after deducting the initial purchasers' discounts and transaction costs.

To date, we have financed our operations primarily through equity issuances, payments received from customers, the net proceeds we received through sales of equity and debt securities and borrowings under our credit facilities. Our principal uses of cash in recent periods have been funding our operations and capital expenditures. We also enter into finance leases to finance our infrastructure assets in co-location facilities that we directly lease and operate. We have not entered into any off-balance sheet arrangements and do not have any holdings in variable interest entities.

We believe that our cash, cash equivalents balances, marketable securities, and our credit facilities, and the cash flows generated by our operations will be sufficient to satisfy our anticipated cash needs for working capital and capital expenditures for at least the next 12 months. We have generated losses from operations in the past and expect to continue to incur operating losses for the foreseeable future due to the investments we intend to make and may require additional capital resources to execute strategic initiatives to grow our business.

We believe we will meet longer-term expected future cash requirements and obligations, through a combination of cash flows from operating activities, available balances of cash, cash equivalents and marketable securities and available credit under our credit facilities. In addition, we may engage in equity or debt financings to secure additional funds. As noted above, our Notes mature on March 25, 2026, and if we are required to repay the Notes or if we are unable to generate sufficient cash flow to service our debt, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt or obtaining additional equity capital on terms that may be onerous or highly dilutive.

As of December 31, 2021, we had \$55.4 million of commitments for capital expenditures which will primarily be financed through finance leases under our existing under our existing agreements.

Cash Collateralized Revolving Credit Agreement

We have a finance lease agreement with an equipment provider that provides financing for up to \$90 million in network equipment. Individual leases have average an interest rate of 4.8% and terms of three years. The agreement provides for bargain purchase prices at the end of the terms. The amortization of leased assets is included in depreciation and amortization expense.

On February 16, 2021, we entered into a Senior Secured Credit Facilities Agreement ("Credit Agreement") with Silicon Valley Bank for an aggregate commitment amount of \$100.0 million. The Credit Agreement bears interest at a rate per annum equal to the sum of LIBOR for the applicable interest period plus 1.75% - 2.00%, depending on the average daily outstanding balance of all loans and letters of credit under the Credit Agreement. Interest payments on outstanding borrowings are due on the last day of each interest period. The Credit Agreement has a commitment fee on the unused portion of the borrowing commitment, which is payable on the last day of each calendar quarter at a rate per annum of 0.20% - 0.25% depending on the average daily outstanding balance of all loans and letters of credit under the Credit Agreement. The agreement allows for use of an alternative interest rate. In addition, our Credit Agreement contains a financial covenant that requires us to maintain a consolidated adjusted quick ratio of at least 1:25 to 1:00 tested on a quarterly basis as well as a springing revenue growth covenant for certain periods if our consolidated adjusted quick ratio falls below 1.75 to 1:00 on the last day of any fiscal quarter.

Cash Flows

The following table summarizes our cash flows for the period indicated:

	Year ended December 31,		
	2021	2020	2019
	(in thousands)		
Cash used in operating activities	\$ (38,482)	\$ (19,916)	\$ (31,303)
Cash used in investing activities	(794,511)	(275,023)	(87,678)
Cash provided by financing activities	936,551	272,739	168,148

Cash Flows from Operating Activities

For the year ended December 31, 2021, cash used in operating activities consisted primarily of our net loss of \$222.7 million adjusted for non-cash items, including \$28.8 million of depreciation and amortization, \$21.2 million of amortization related to acquired intangibles, \$140.5 million of stock-based compensation expense, \$26.9 million of lease amortization expense, amortization of deferred contract costs of \$6.3 million and amortization of debt issuance costs of \$3.2 million. With respect to changes in operating assets and liabilities, there was an increase in accounts receivable of \$14.6 million, primarily due to an increase in revenue and the timing of cash receipts from certain of our larger customers and an increase of \$15.2 million in prepaid expenses and other assets due to pre-payments for software licenses. We also had \$26.4 million of operating lease payments. This was partially offset by increases of \$4.3 million in accrued expenses and \$8.9 million in other liabilities due to timing of payments.

For the year ended December 31, 2020, cash used in operating activities consisted primarily of our net loss of \$95.9 million adjusted for non-cash items, including \$20.0 million of depreciation and amortization, \$5.1 million of amortization related to acquired intangibles, \$64.4 million of stock-based compensation expense, \$21.8 million of lease amortization expense, amortization of deferred contract costs of \$3.5 million and allowance for credit losses of \$1.7 million. This was partially offset by \$13.0 million in tax benefits related to release of valuation allowance related to deferred taxes associated with the Signal Sciences acquisition. With respect to changes in operating assets and liabilities, there was a decrease in accounts receivable of \$9.3 million, primarily due to increased collections due to the growth of our business and the timing of cash receipts from certain of our larger customers, and \$22.7 million in prepaid expenses and other assets due to pre-payments for software licenses. We also had \$18.3 million of operating lease payments. This was partially offset by an increase of \$22.0 million in accounts payable, accrued expenses, and other liabilities due to timing of payments.

For the year ended December 31, 2019, cash used in operating activities consisted primarily of our net loss of \$51.6 million adjusted for non-cash items, including \$16.6 million of depreciation and amortization, \$12.1 million of stock-based compensation expense, \$2.3 million of amortization of deferred contract costs, \$0.7 million of amortization of deferred rent, an increase in the fair value of our common stock warrants of \$2.4 million, and amortization of debt issuance costs of \$1.9 million.

With respect to changes in operating assets and liabilities, there was an increase in accounts receivable of \$12.8 million, primarily due to the growth of our business and the timing of cash receipts from certain of our larger customers, an increase in other long-term assets of \$3.9 million due to the adoption of Accounting Standards Update No. 2014-09, Revenue from Contracts with Customers, and an increase of \$2.7 million in prepaid expenses and other assets due to pre-payments for software licenses.

Cash Flows from Investing Activities

For the year ended December 31, 2021, cash used in investing activities was \$794.5 million, primarily consisting of \$928.2 million in purchases of marketable securities, \$34.8 million of payments related to purchases of property and equipment to expand our network, \$13.5 million of additions to capitalized internal-use software. This was offset by \$184.6 million of maturities and sales of marketable securities.

For the year ended December 31, 2020, cash used in investing activities was \$275.0 million, primarily consisting of \$269.1 million in purchases of marketable securities, \$201.0 million of business acquisitions, net of cash acquired, \$29.6 million of payments related to purchases of property and equipment to expand our network, \$6.1 million of additions to capitalized internal-use software, and \$1.8 million of purchases of intangible assets. This was offset by \$232.0 million of maturities and sales of marketable securities.

For the year ended December 31, 2019, cash used in investing activities was \$87.7 million, primarily consisting of \$191.0 million in purchases of marketable securities, \$14.6 million of payments related to purchases of property and equipment to expand our network, and \$4.9 million of additions to capitalized internal-use software. This was offset by \$123.4 million of maturities of marketable securities.

Cash Flows from Financing Activities

For the year ended December 31, 2021, cash provided by financing activities was \$936.6 million, primarily consisting of \$930.8 million of proceeds from the issuance of the Notes, net of issuance costs, \$8.1 million in proceeds from the employee stock purchase plan ("ESPP") and \$12.6 million in proceeds from stock option exercises by our employees and directors. This was partially offset by \$13.6 million of finance lease liabilities repayments.

For the year ended December 31, 2020, cash provided by financing activities was \$272.7 million, primarily consisting of \$274.9 million in proceeds from our follow-on public offering, net of underwriting fees, \$9.3 million in proceeds from the ESPP, and \$15.3 million in proceeds from stock option exercises by our employees and directors. This was partially offset by \$20.3 million of debt repayments, \$5.8 million of finance lease liabilities repayments, and \$0.7 million of payments of costs related to our follow-on public offering.

For the year ended December 31, 2019, cash provided by financing activities was \$168.1 million, primarily consisting of \$192.5 million in proceeds from our IPO, net of underwriting fees, \$5.4 million in proceeds from the ESPP, \$6.1 million in proceeds from stock option exercises by our employees and directors. This was partially offset by \$29.1 million of net debt repayments, \$5.5 million of payments of costs related to our IPO, and \$1.4 million of finance lease liabilities repayments.

Contractual Obligations and Other Commitments

The following table summarizes our non-cancelable contractual obligations as of December 31, 2021:

	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years	Total
	(in thousands)				
Purchase obligations - non-equipment ⁽¹⁾	\$ 49,056	\$ 24,085	\$ 160	\$ 82	\$ 73,383
Purchase obligations - equipment ⁽²⁾	55,358	—	—	—	55,358
Operating lease obligations ⁽³⁾	19,389	46,702	13,174	5,813	85,078
Finance lease obligations ⁽⁴⁾	22,700	23,071	—	—	45,771
Debt obligation ⁽⁵⁾	—	—	948,750	—	948,750
Total	<u>\$ 146,503</u>	<u>\$ 93,858</u>	<u>\$ 962,084</u>	<u>\$ 5,895</u>	<u>\$ 1,208,340</u>

- (1) Purchase obligations-non equipment represent total future minimum payments under contracts with our cloud infrastructure provider, network service providers, and other vendors. Purchase obligations exclude agreements that are cancellable without penalty. Our purchase obligations exclude our operating lease commitments associated with our colocation arrangements which have been separately disclosed under our operating lease commitments.
- (2) Purchase obligations-equipment represent total future minimum payments under contracts for capital expenditures which will primarily be financed through finance leases under our existing agreements.
- (3) Operating lease obligations represent total future minimum rent payments under non-cancelable operating lease agreements, such as our facilities and colocation (i.e. data center) leases.
- (4) Finance lease obligations represents principal and interest payments under our networking equipment leases.
- (5) Debt obligation aggregate principal amount of our 0% convertible senior notes due on March 15, 2026.

These commitments will be generally be settled with existing cash on hand and cash generated from operations. Purchase obligations for capital equipment will be primarily settled by additional finance lease borrowings.

Critical Accounting Policies and Estimates

We prepare our consolidated financial statements in accordance with U.S. GAAP. The preparation of our consolidated financial statements requires us to make estimates, judgments, and assumptions that affect the reported amounts of assets, liabilities, revenue, costs, expenses, and related disclosures. Actual results and outcomes could differ significantly from our estimates, judgments, and assumptions. To the extent that there are material differences between these estimates and actual results, our future financial statement presentation, financial condition, results of operations, and cash flows will be affected.

Revenue Recognition

Revenue is recognized upon transfer of control of promised products or services to customers in an amount that reflects the consideration we expect to receive in exchange for those products or services. The processing and recording of certain revenue requires a manual process, which uses a complex set of procedures to generate complete and accurate data to record these revenue transactions. We enter into contracts that can include various combinations of products and services, each of which are distinct and accounted for as separate performance obligations. Revenue is recognized net of any taxes collected from customers, which are subsequently remitted to governmental authorities.

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer and is the unit of account. Our contracts with customers often include promises to transfer multiple products and services to a customer. Determining whether products and services are considered distinct performance obligations that should be accounted for separately versus together may require significant judgment. For contracts with multiple performance obligations, we allocate the contract transaction price to each performance obligation using our estimate of the standalone selling price ("SSP") of each distinct good or service in the contract.

Judgment is required to determine the SSP for each distinct performance obligation. We analyze separate sales of our products and services as a basis for estimating the SSP of our products and services. We then use the SSP as the basis for allocating the transaction price when our product and services are sold together in a contract with multiple performance obligations. In instances where SSP is not directly observable, such as when we do not sell the product or service separately, we

determine the SSP using information that may include market conditions and other observable inputs. We typically have more than one SSP for individual products and services due to the stratification of those products and services by customers and circumstances. In these instances, we may use information, such as geographic region and distribution channel, in determining the SSP.

The transaction price in a contract for usage-based services is typically equal to the minimum commit price in the contract less any discounts provided. The transaction price in a contract that does not contain usage-based services is equal to the total contract value. Because our typical contracts represent distinct services delivered over time with the same pattern of transfer to the customer, usage-based consideration primarily related to actual consumption over the minimum commit levels is allocated to the period to which it relates. The amount of consideration recognized for usage above the minimum commit price is limited to the amount we expect to be entitled to receive in exchange for providing services. We have elected to apply the practical expedient for estimating and disclosing the variable consideration when 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 from our remaining performance obligations under these contracts.

Performance obligations represent stand-ready obligations that are satisfied over time as the customer simultaneously receives and consumes the benefits provided by us. These obligations can be content delivery, security, subscription services, professional services, support, edge cloud platform services, and others. Accordingly, our revenue is recognized over time, consistent with the pattern of benefit provided to the customer over the term of the agreement.

At times, customers may request changes that either amend, replace, or cancel existing contracts. Judgment is required to determine whether the specific facts and circumstances within the contracts should be accounted for as a separate contract or as a modification.

In contracts where there are timing differences between when we transfer a promised good or service to the customer and when the customer pays for that good or service, we have determined our contracts do not include a significant financing component. We have also elected the practical expedient to not measure financing components for any contract where the timing difference is less than one year.

Stock-Based Compensation

We account for stock-based employee compensation plans under the fair value recognition and measurement provisions, which require all stock-based payments, including grants of stock options, restricted stock units ("RSUs"), restricted stock awards ("RSAs"), performance stock awards ("PSUs") and shares issued under our Employee Stock Purchase Plan ("ESPP") to be measured based on the grant-date fair value of the award and recognized as expense over the requisite service period, which is generally the vesting period of the respective award. We account for forfeitures as they occur.

The fair value of RSUs and RSAs granted to our employees and directors is based on the grant date fair value. The fair value of PSUs granted to our employees is based on the fair value determined when the performance metrics were set. The fair value of stock options granted to our employees and directors, and of the shares to be issued under our ESPP are based on the Black-Scholes option-pricing model. The determination of the fair value of a stock-based award is affected by the deemed fair value of the underlying stock price on the grant date, as well as assumptions regarding a number of other complex and subjective variables. These variables include the fair value of our common stock, the expected stock price volatility over the expected term of the options, stock option exercise and cancellation behaviors, risk-free interest rates, and expected dividends:

These assumptions and estimates are as follows:

- ***Fair Value of Common Stock.*** We use the market closing price of our Class A common stock, as reported on the New York Stock Exchange, for the fair value. Prior to our IPO, our board of directors considered numerous objective and subjective factors to determine the fair value of our common stock at each meeting at which awards are approved. These factors included, but were not limited to (i) contemporaneous third-party valuations of Common Stock; (ii) the rights and preferences of Series Preferred relative to Common Stock; (iii) the lack of marketability of Common Stock; (iv) developments in the business; and (v) the likelihood of achieving a liquidity event, such as an IPO or sale of the Company, given prevailing market conditions.

- *Expected Term.* The expected term represents the period that our stock-based awards are expected to be outstanding. The expected term assumptions were determined based on the vesting terms, exercise terms, and contractual lives of the options. The expected term was estimated using the simplified method allowed under Securities and Exchange Commission (SEC) guidance.
- *Volatility.* The expected volatility is derived from an average of the historical stock volatilities of the common stock of the Company. In prior years the expected volatility calculation also included the historical stock volatilities of comparable companies as we did not have a long enough trading history of our common stock. Comparable companies consist of public companies in our industry, which are similar in size, stage of life cycle, and financial leverage.
- *Risk-free Interest Rate.* The risk-free interest rate used in the Black-Scholes option pricing model is the implied yield available on U.S. Treasury zero-coupon issues with a remaining term equivalent to that of the options for each expected term.
- *Dividend Yield.* The expected dividend assumption is based on our current expectations of our anticipated dividend policy. We have no history of paying any dividends and therefore used an expected dividend yield of zero.

Valuation of Goodwill and Other Acquired Intangible Assets in Business Combination

Accounting for business combinations requires us to make significant estimates and assumptions, especially at the acquisition date with respect to tangible and intangible assets acquired and liabilities assumed. We use our best estimates and assumptions to accurately assign fair value to the tangible and intangible assets acquired and liabilities assumed at the acquisition date as well as the useful lives of those acquired intangible assets. Examples of critical estimates in valuing certain of the intangible assets and goodwill we have acquired include but are not limited to future expected cash flows from acquired developed technologies; the acquired company's trade name, existing customer relationships and backlog. These estimates are inherently uncertain and unpredictable, and if different estimates were used the purchase price for the acquisition could be allocated to the acquired assets and liabilities differently from the allocation that we have made. Additionally, unanticipated events and circumstances may occur, which may affect the accuracy or validity of such assumptions, estimates or actual results.

The authoritative guidance allows a measurement period of up to one year from the date of acquisition to make adjustments to the preliminary allocation of the purchase price. As a result, during the measurement period we may record adjustments to the fair values of assets acquired and liabilities assumed, with the corresponding offset to goodwill to the extent that it identifies adjustments to the preliminary purchase price allocation. Upon conclusion of the measurement period or final determination of the values of the assets acquired and liabilities assumed, whichever comes first, any subsequent adjustments will be recorded to the Consolidated Statement of Operations.

Impairment of Goodwill, Intangible Assets and Other Long-Lived Assets

Goodwill is the amount by which the cost of acquired net assets in a business combination exceeds the fair value of the net identifiable assets on the date of purchase and is carried at its historical cost. We test goodwill for impairment on an annual basis or more frequently if events or changes in circumstances indicate that the asset might be impaired. We determined that we operate as one reporting unit and we perform our annual impairment test of goodwill as of October 31 and whenever events or circumstances indicate that the asset might be impaired.

Long-lived assets, including property and equipment and intangible assets, are reviewed for impairment whenever events or changes in circumstances, such as service discontinuance, technological obsolescence, significant decreases in our market capitalization, facility closures, or work-force reductions indicate that the carrying amount of the long-lived asset or asset group may not be recoverable. When such events occur, we compare the carrying amount of the asset or asset group to the undiscounted expected future cash flows related to the asset or asset group. If this comparison indicates that an impairment is present, the amount of the impairment is calculated as the difference between the carrying amount and the fair value of the asset or asset group.

Leases

We lease office space and data centers ("Colocation leases") under non-cancelable operating leases with various expiration dates through 2027. We also lease server equipment under non-cancelable operating finance leases with various expiration dates through 2024. We determine if an arrangement contains a lease at inception.

Operating lease right-of-use assets and lease liabilities are recognized at the present value of the future lease payments at commencement date. The interest rate implicit in our operating leases is not readily determinable, and therefore an incremental borrowing rate is estimated to determine the present value of future payments. The estimated incremental borrowing rate factors in a hypothetical interest rate on a collateralized basis with similar terms, payments, and economic environments. Operating lease right-of-use assets also include any prepaid lease payments and lease incentives.

Certain of the operating lease agreements contain rent concession, rent escalation, and option to renew provisions. Rent concession and rent escalation provisions are considered in determining the single lease cost to be recorded over the lease term. Single lease cost is recognized on a straight-line basis over the lease term commencing on the date we have the right to use the leased property. The lease terms may include options to extend or terminate the lease. We generally use the base, non-cancelable, lease term when recognizing the lease assets and liabilities, unless it is reasonably certain that the option will be exercised. Our lease agreements may contain variable costs such as common area maintenance, operating expenses or other costs. Variable lease costs are expensed as incurred on the consolidated statements of operations. Our lease agreements generally do not contain any residual value guarantees or restrictive covenants.

We lease networking equipment from a third party, through equipment finance leases. These leases include a bargain purchase option, resulting in a full transfer of ownership at the completion of the lease term.

Operating leases are reflected in operating lease right-of-use assets, operating lease liabilities, and operating lease liabilities, non-current on our consolidated balance sheets. Finance leases are included in property and equipment, net, finance lease liabilities, and finance lease liabilities, non-current on our consolidated balance sheets.

Internal-Use Software Development Costs

Labor and related costs associated with internal-use software during the application development stage are capitalized. Capitalization of costs begins when the preliminary project stage is completed, management has committed to funding the project, and it is probable that the project will be completed and the software will be used to perform the function intended. Capitalization ceases at the point when the project is fully tested and substantially complete and is ready for its intended purpose. The capitalized amounts are included in property and equipment, net on the Consolidated Balance Sheets. We amortize such costs over the estimated useful life of the software; completed internal-use software that is used on our network is amortized to cost of revenue over its estimated useful life. Costs incurred during the planning, training, and post-implementation stages of the software development life-cycle are expensed as incurred.

Legal and Other Contingencies

From time to time, we have been and will continue to be subject to legal proceedings and claims. Periodically, we evaluate the status of each legal matter and assess our potential financial exposure. If the potential loss from any legal proceeding or litigation is considered probable and the amount can be reasonably estimated, we accrue a liability for the estimated loss. Significant judgment is required to determine the probability of a loss and whether the amount of the loss is reasonably estimable. The outcome of any proceeding is not determinable in advance. As a result, the assessment of a potential liability and the amount of accruals recorded are based only on the information available to us at the time. As additional information becomes available, we reassess the potential liability related to the legal proceeding or litigation, and may revise our estimates. Any revisions could have a material effect on our results of operations.

Please refer to Note 10—Commitments and Contingencies for discussion around our legal proceedings.

We conduct operations in many tax jurisdictions throughout the United States. In many of these jurisdictions, non-income-based taxes, such as sales and use and telecommunications taxes are assessed on our operations. We are subject to indirect taxes, and may be subject to certain other taxes, in some of these jurisdictions. Historically, we have not billed or collected these taxes and, in accordance with U.S. GAAP, we have recorded a provision for our tax exposure in these jurisdictions when it is both probable that a liability has been incurred and the amount of the exposure can be reasonably estimated. As a result, we have recorded a liability of \$7.5 million as of December 31, 2021. These estimates are based on

several key assumptions, including the taxability of our products, the jurisdictions in which we believe we have nexus and the sourcing of revenues to those jurisdictions. In the event these jurisdictions challenge our assumptions and analysis, our actual exposure could differ materially from our current estimates.

Recent Accounting Pronouncements

Please refer to Note 2—Summary of Significant Accounting Policies included in the Notes to Consolidated Financial Statements.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

We are exposed to certain market risks in the ordinary course of our business. Our market risk exposure is primarily the result of fluctuations in foreign currency exchange and interest rates.

Interest Rate Risk

We had cash, cash equivalents, and marketable securities of \$1,056.8 million, as of December 31, 2021, which consisted of bank deposits, money market funds, corporate notes and bonds, commercial paper, U.S. Treasury securities, and asset-backed securities. The cash and cash equivalents are held for working capital purposes. Such interest-earning instruments carry a degree of interest rate risk. To date, fluctuations in interest income have not been significant. The primary objective of our investment activities is to preserve principal while generating income without significantly increasing risk. We do not enter into investments for trading or speculative purposes and have not used any derivative financial instruments to manage our interest rate risk exposure. Due to the short-term nature of our investments, we have not been exposed to, nor do we anticipate being exposed to, material risks due to changes in interest rates. A hypothetical 10% change in interest rates during the period presented would not have had a material impact on our consolidated financial statements.

Currency Exchange Risks

Our sales contracts are primarily denominated in U.S. dollars, and therefore a majority of our revenue is not subject to foreign currency revaluation. However, this could make our products and services more expensive to our foreign customers as rates fluctuate. The functional currency of our foreign subsidiaries is the U.S. dollar. Therefore, we are exposed to foreign exchange rate fluctuations as we convert the financial statements of our foreign subsidiaries into U.S. dollars. The local currencies of our foreign subsidiaries are the Australian dollar, British pound, Euros, Japanese Yen, and Swedish kroner. Our subsidiaries remeasure monetary assets and liabilities at period-end exchange rates, while non-monetary items are remeasured at historical rates. Revenue and expense accounts are remeasured at the average exchange rate in effect during the period. If there is a change in foreign currency exchange rates, the conversion of our foreign subsidiaries' financial statements into U.S. dollars would result in a realized gain or loss which is recorded in our consolidated statements of operations. We do not currently engage in any hedging activity to reduce our potential exposure to currency fluctuations, although we may choose to do so in the future. A hypothetical 10% change in foreign exchange rates during the period presented would not have had a material impact on our consolidated financial statements.

Item 8. Financial Statements and Supplementary Data

FASTLY, INC.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

The following financial statements are filed as part of this Annual Report on form 10-K:

[Report of Independent Registered Public Accounting Firm \(PCAOB ID No. 34\)](#)

[Consolidated Balance Sheets](#)

[Consolidated Statements of Operations](#)

[Consolidated Statements of Comprehensive Loss](#)

[Consolidated Statements of Convertible Preferred Stock and Stockholders' Equity \(Deficit\)](#)

[Consolidated Statements of Cash Flows](#)

[Notes to Consolidated Financial Statements](#)

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Fastly, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Fastly, Inc. and subsidiaries (the "Company") as of December 31, 2021 and 2020, the related consolidated statements of operations, comprehensive loss, 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, 2020 and 2019, 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.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report date March 1, 2022 expressed an adverse opinion on the Company's internal control over financial reporting because of material weaknesses.

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 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. 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.

Critical Audit Matters

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

Revenue – Refer to Note 3 to the financial statements

Critical Audit Matter Description

Revenue is recognized upon transfer of control of promised products or services to customers in an amount that reflects the consideration the Company expects to receive in exchange for those products or services. The processing and recording of certain revenue requires a manual process, and therefore the Company uses a complex set of procedures to generate complete and accurate data to record its revenue transactions. For the year ended December 31, 2021, total revenue was \$354.3 million, which includes the manually processed revenue.

We identified manually processed revenue as a critical audit matter as the Company has a significant volume of manually processed revenue and a complex set of manual procedures to generate complete and accurate data to process and record revenue. This required an increased extent of effort to audit these manually processed revenue transactions.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to manually processed revenue included the following, among others:

- We tested the effectiveness of controls over the recognition of manually processed revenue.
- We obtained an understanding of the nature of the manually processed revenue through inquiry with the Company personnel responsible for the invoice as well as review of the contract with the customer.
- For a sample of manually processed revenue transactions, we recalculated the manually processed revenue and evaluated the accuracy of the data used in our recalculation of manually processed revenue by comparing key attributes utilized in our recalculation to source information and documents, including usage, bandwidth, and other services provided. We compared our recalculation of manually processed revenue transactions to the Company's recorded revenue and evaluated any differences.

Stock Subject to Revest – Refer to Notes 5, 11 and 15 to the financial statements

Critical Audit Matter Description

On October 1, 2020, the Company completed the acquisition of Signal Sciences. In connection with the acquisition, a restriction was placed on 896,499 shares belonging to the three co-founders of Signal Sciences to make them subject to revesting on a quarterly basis over a 2-year period. During the quarter ended September 30, 2021 and the quarter ended December 31, 2021, 186,771 and 149,417 unvested shares were sold prior to vesting, respectively. As the holders of these shares were not entitled to the benefit of unvested shares, the Company requested the return of the proceeds for the unvested shares as of December 31, 2021. Subsequent to December 31, 2021, the Company entered into an agreement with the holders of restricted stock which resulted in a modification of the terms of the original awards and received a total of \$10.7 million from these founders.

Auditing the Company's accounting for stock subject to revest required complex auditor judgment. In particular, judgment was required to evaluate the appropriate accounting for the cash received by founders subsequent to December 31, 2021, as well as to assess the timing and type of modifications.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to stock subject to revest included the following, among others:

- We read the applicable agreements, recalculated the unvested shares sold prior to vesting, and compared the key terms from the agreements to management's analysis.
- We obtained supporting evidence for legal conclusions reached by the Company.
- With the assistance of professionals in our firm having expertise in accounting for stock compensation, we evaluated the Company's conclusions regarding the treatment of cash received by founders and the timing and type of modifications in accordance with accounting principles generally accepted in the United States of America.
- We also evaluated the adequacy of the Company's disclosures included in Notes 5, 11 and 15 in relation to these matters.

/s/ Deloitte & Touche LLP
San Francisco, California
March 1, 2022

We have served as the Company's auditor since 2014.

FASTLY, INC.
CONSOLIDATED BALANCE SHEETS
(in thousands, except share amounts)

	As of December 31, 2021	As of December 31, 2020
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 166,068	\$ 62,900
Marketable securities, current	361,795	131,283
Accounts receivable, net of allowance for credit losses of \$3,311 and \$3,248 as of December 31, 2021 and December 31, 2020, respectively	64,625	50,258
Restricted cash	—	87
Prepaid expenses and other current assets	32,160	16,728
Total current assets	624,648	261,256
Property and equipment, net	166,961	95,979
Operating lease right-of-use assets, net	69,631	60,019
Goodwill	636,805	635,590
Intangible assets, net	102,596	121,742
Marketable securities, non-current	528,911	20,448
Other assets	29,468	24,917
Total assets	<u>\$ 2,159,020</u>	<u>\$ 1,219,951</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 9,257	\$ 9,150
Accrued expenses	36,112	34,334
Finance lease liabilities, current	21,125	11,033
Operating lease liabilities, current	20,271	19,895
Other current liabilities	45,107	19,677
Total current liabilities	131,872	94,089
Long-term debt	933,205	—
Finance lease liabilities, noncurrent	22,293	14,707
Operating lease liabilities, noncurrent	55,114	44,890
Other long-term liabilities	2,583	4,400
Total liabilities	<u>1,145,067</u>	<u>158,086</u>
Commitments and contingencies (Note 10)		
Stockholders' equity:		
Class A and Class B common stock, \$0.00002 par value; 1,094,129,050 and 1,094,129,050 shares authorized as of December 31, 2021 and 2020, respectively; 118,810,611 and 113,623,196 shares issued and outstanding at December 31, 2021 and 2020, respectively	2	2
Additional paid-in capital	1,527,468	1,350,050
Accumulated other comprehensive income (loss)	(2,627)	6
Accumulated deficit	(510,890)	(288,193)
Total stockholders' equity	<u>1,013,953</u>	<u>1,061,865</u>
Total liabilities and stockholders' equity	<u>\$ 2,159,020</u>	<u>\$ 1,219,951</u>

The accompanying notes are an integral part of the consolidated financial statements.

FASTLY, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)

	Year ended December 31,		
	2021	2020	2019
Revenue	\$ 354,330	\$ 290,874	\$ 200,462
Cost of revenue	167,002	120,007	88,322
Gross profit	187,328	170,867	112,140
Operating expenses:			
Research and development	126,859	74,814	46,492
Sales and marketing	152,645	101,181	71,097
General and administrative	126,845	102,084	41,099
Total operating expenses	406,349	278,079	158,688
Loss from operations	(219,021)	(107,212)	(46,548)
Interest income	1,282	1,628	3,287
Interest expense	(5,245)	(1,549)	(5,236)
Other income (expense), net	356	(279)	(2,561)
Loss before income tax expense (benefit)	(222,628)	(107,412)	(51,058)
Income tax expense (benefit)	69	(11,480)	492
Net loss	\$ (222,697)	\$ (95,932)	\$ (51,550)
Net loss per share attributable to common stockholders, basic and diluted	\$ (1.92)	\$ (0.93)	\$ (0.75)
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted	116,053	103,552	68,350

The accompanying notes are an integral part of the consolidated financial statements.

FASTLY, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(in thousands)

	Year ended December 31,		
	2021	2020	2019
Net loss	\$ (222,697)	\$ (95,932)	\$ (51,550)
Other comprehensive income (loss);			
Foreign currency translation adjustment	\$ (286)	\$ (135)	\$ 111
Gain (loss) on investments in available-for-sale-securities	(2,347)	(55)	121
Total other comprehensive income (loss)	\$ (2,633)	\$ (190)	\$ 232
Comprehensive loss	\$ (225,330)	\$ (96,122)	\$ (51,318)

The accompanying notes are an integral part of the consolidated financial statements.

FASTLY, INC.
CONSOLIDATED STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)
(in thousands, except share amounts)

	Convertible Preferred Shares		Common Stock—Class A		Common Stock—Class B		Additional Paid-in Capital	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount	Shares	Amount					
Balance as of December 31, 2018	53,630,213	219,584	—	—	25,025,836	1	16,403	(2,109)	(36)	(146,186)	(131,927)
Impact of change in accounting policy	—	—	—	—	—	—	—	—	—	5,727	5,727
Conversion of convertible preferred stock to Class B common stock	(53,630,213)	(219,584)	—	—	53,630,213	1	219,583	—	—	—	219,584
Conversion of convertible preferred stock warrants to Class B common stock warrants	—	—	—	—	—	—	5,665	—	—	—	5,665
Conversion of Class B common stock to Class A common stock	—	—	46,422,400	1	(46,422,400)	(1)	—	—	—	—	—
Issuance of Class A common stock in connection with the IPO, net of underwriting discounts	—	—	12,937,500	—	—	—	186,912	—	—	—	186,912
Exercise of stock options	—	—	1,289,600	—	1,211,230	—	5,579	—	—	—	5,579
Exercise of common stock warrants	—	—	—	—	224,102	—	—	—	—	—	—
Vesting of early exercised stock options	—	—	—	—	162,101	—	620	—	—	—	620
Issuance of common stock under ESPP	—	—	305,194	—	—	—	4,150	—	—	—	4,150
Stock-based compensation	—	—	—	—	—	—	12,586	—	—	—	12,586
Repayment of shareholder note	—	—	—	—	31,939	—	74	—	—	—	74
Retirement of treasury stock	—	—	—	—	—	—	(2,109)	2,109	—	—	—
Net loss	—	—	—	—	—	—	—	—	—	(51,550)	(51,550)
Other comprehensive income	—	—	—	—	—	—	—	—	232	—	232
Balance as of December 31, 2019	—	—	60,954,694	\$ 1	33,863,021	\$ 1	\$ 449,463	—	\$ 196	\$ (192,009)	\$ 257,652
Change in accounting policy	—	—	—	—	—	—	—	—	—	(252)	(252)
Issuance of Class A common stock issued in connection with the follow-on public offering, net of underwriting discounts	—	—	6,900,000	—	—	—	274,177	—	—	—	274,177
Shares issued related to a business combination (Note 5)	—	—	6,367,709	—	—	—	622,595	—	—	—	622,595
Value of equity awards assumed in a business combination (Note 5)	—	—	—	—	—	—	1,129	—	—	—	1,129
Restriction of stock awards (Note 5)	—	—	(896,499)	—	—	—	(87,714)	—	—	—	(87,714)
Vesting of restricted stock awards	—	—	112,062	—	—	—	—	—	—	—	—
Exercise of stock options	—	—	4,360,205	—	—	—	15,273	—	—	—	15,273
Exercise of common stock warrants	—	—	—	—	144,635	—	—	—	—	—	—
Vesting of early exercised stock options	—	—	—	—	108,918	—	467	—	—	—	467
Vesting of restricted stock units	—	—	1,377,239	—	—	—	—	—	—	—	—
Issuance of common stock under ESPP	—	—	331,212	—	—	—	8,193	—	—	—	8,193
Stock-based compensation	—	—	—	—	—	—	66,467	—	—	—	66,467
Conversion of Class B common stock to Class A common stock	—	—	23,887,874	—	(23,887,874)	—	—	—	—	—	—
Net loss	—	—	—	—	—	—	—	—	—	(95,932)	(95,932)
Other comprehensive loss	—	—	—	—	—	—	\$ —	—	(190)	—	(190)
Balance as of December 31, 2020	—	—	103,394,496	\$ 1	10,228,700	\$ 1	\$ 1,350,050	—	\$ 6	\$ (288,193)	\$ 1,061,865

FASTLY, INC.
CONSOLIDATED STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT) (Continued)
(in thousands, except share amounts)

	Convertible Preferred Shares		Common Stock—Class A		Common Stock—Class B		Additional Paid-in Capital	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount	Shares	Amount					
Balance as of December 31, 2020	—	—	103,394,496	\$ 1	10,228,700	\$ 1	\$ 1,350,050	—	\$ 6	\$ (288,193)	\$ 1,061,865
Exercise of vested stock options	—	—	2,188,363	\$ —	—	—	12,626	—	—	—	12,626
Vesting of early exercised stock options	—	—	47,882	\$ —	43,095	—	405	—	—	—	405
Vesting of restricted stock units	—	—	1,999,557	\$ —	—	—	—	—	—	—	—
Proceeds from sale of restricted shares	—	—	224,124	\$ —	—	—	10,655	—	—	—	10,655
Vesting of restricted stock awards	—	—	448,248	\$ —	—	—	—	—	—	—	—
Shares issued under ESPP	—	—	236,146	\$ —	—	—	8,798	—	—	—	8,798
Stock-based compensation	—	—	—	\$ —	—	—	144,934	—	—	—	144,934
Conversion of Class B to Class A Stock	—	—	10,271,795	\$ 1	(10,271,795)	(1)	—	—	—	—	—
Net loss	—	—	—	\$ —	—	—	—	—	—	(222,697)	(222,697)
Other comprehensive loss	—	—	—	\$ —	—	—	—	—	(2,633)	—	(2,633)
Balance at December 31, 2021	—	—	118,810,611	\$ 2	—	\$ —	\$ 1,527,468	—	\$ (2,627)	\$ (510,890)	\$ 1,013,953

FASTLY, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Year ended December 31,		
	2021	2020	2019
Cash flows from operating activities:			
Net loss	\$ (222,697)	\$ (95,932)	\$ (51,550)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	28,799	19,979	16,553
Amortization of acquired intangibles	21,238	5,078	—
Amortization of right-of-use assets and other	26,883	21,765	—
Amortization of deferred rent	—	—	(711)
Amortization of debt issuance costs	3,185	219	1,909
Amortization of deferred contract costs	6,294	3,516	2,294
Stock-based compensation	140,488	64,433	12,145
Provision for credit losses and doubtful accounts	196	1,719	360
Change in fair value of preferred stock warrant liabilities	—	—	2,404
Other adjustments	2,225	624	(591)
Interest paid on capital leases	(1,754)	(688)	(364)
(Gain) loss on disposals of property and equipment	(300)	653	108
Tax benefit related to release of valuation allowance	—	(12,950)	—
Changes in operating assets and liabilities:			
Accounts receivable	(14,563)	(9,264)	(12,767)
Prepaid expenses and other current assets	(4,777)	(5,550)	(2,666)
Other assets	(10,423)	(17,162)	(3,945)
Accounts payable	146	4,059	2,391
Accrued expenses	4,261	12,992	4,401
Operating lease liabilities	(26,447)	(18,264)	—
Other liabilities	8,764	4,857	(1,274)
Net cash used in operating activities	(38,482)	(19,916)	(31,303)
Cash flows from investing activities:			
Purchases of marketable securities	(928,155)	(269,059)	(190,980)
Sales of marketable securities	66,527	143,241	52,589
Maturities of marketable securities	118,085	88,719	70,813
Acquisition of business, net of cash acquired	(1,169)	(200,988)	—
Proceeds from sale of property and equipment	588	575	—
Purchases of property and equipment	(34,816)	(29,569)	(14,609)
Capitalized internal-use software	(13,479)	(6,131)	(4,856)
Purchases of intangible assets	(2,092)	(1,811)	(635)
Net cash used in investing activities	(794,511)	(275,023)	(87,678)
Cash flows from financing activities:			
Proceeds from initial public offering, net of underwriting fees	—	—	192,510
Payments of costs related to initial public offering	—	—	(5,469)
Proceeds from follow-on public offering, net of underwriting fees	—	274,896	—
Payments of costs related to follow-on public offering	—	(675)	—
Issuance of convertible note, net of issuance costs	930,775	—	—
Proceeds from borrowings under notes payable	—	—	20,300
Payments of debt issuance costs	(1,351)	—	(231)
Repayments of notes payable	—	(20,300)	(49,167)
Repayments of finance lease liabilities	(13,568)	(5,773)	(1,370)
Proceeds from Employee Stock Purchase Plan	8,069	9,318	5,402
Proceeds from exercise of vested stock options	12,626	15,273	5,579
Proceeds from early exercise of stock options	—	—	520
Proceeds from payment of stockholder note	—	—	74
Net cash provided by financing activities	936,551	272,739	168,148
Effects of exchange rate changes on cash, cash equivalents, and restricted cash	(477)	(149)	99
Net increase (decrease) in cash, cash equivalents, and restricted cash	103,081	(22,349)	49,266
Cash, cash equivalents, and restricted cash at beginning of period	63,880	86,229	36,963
Cash, cash equivalents, and restricted cash at end of period	\$ 166,961	\$ 63,880	\$ 86,229

The accompanying notes are an integral part of the consolidated financial statements.

FASTLY, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS—Continued
(in thousands)

	Year ended December 31,		
	2021	2020	2019
Supplemental disclosure of cash flow information:			
Cash paid for interest	\$ 1,938	\$ 1,590	\$ 5,422
Cash paid for income taxes, net of refunds received	\$ 267	\$ 1,219	\$ 361
Property and equipment additions not yet paid in cash or financed	\$ 18,275	\$ 3,184	\$ 7,071
Vesting of early-exercised stock options	\$ 405	\$ 467	\$ 620
Capital lease outstanding from current year addition	\$ —	\$ —	\$ 7,380
Change in other assets from change in accounting principle	\$ —	\$ —	\$ 5,727
Conversion of convertible preferred stock warrants to convertible common stock warrants	\$ —	\$ —	\$ 5,665
Cashless exercise of common stock warrants	\$ —	\$ 1,557	\$ 1,036
Costs related to initial public offering, accrued but not yet paid	\$ —	\$ —	\$ 130
Stock-based compensation capitalized to internal-use software	\$ 4,446	\$ 2,034	\$ 441
Assets obtained in exchange for operating lease obligations	\$ 32,458	\$ 23,827	\$ —
Assets obtained in exchange for finance lease obligations	\$ 31,529	\$ 22,541	\$ —
Value of common stock issued and stock awards assumed in a business combination	\$ —	\$ 536,432	\$ —
Receivable related to shares of restricted stock	\$ 10,655	\$ —	\$ —
Reconciliation of cash, cash equivalents, and restricted cash as shown in the statements of cash flows			
Cash and cash equivalents	\$ 166,068	\$ 62,900	\$ 16,142
Restricted cash	—	87	70,087
Restricted cash included in other assets	893	893	—
Total cash, cash equivalents, and restricted cash	<u>\$ 166,961</u>	<u>\$ 63,880</u>	<u>\$ 86,229</u>

The accompanying notes are an integral part of the consolidated financial statements.

FASTLY, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Nature of Business

Fastly, Inc. has built an edge cloud platform that can process, serve, and secure its customer's applications as close to their end users as possible. As of December 31, 2021, our edge network spans across 71 markets. We were incorporated in Delaware in 2011 and are headquartered in San Francisco, California.

As used herein, "Fastly," "we," "our," "the Company," and similar terms include Fastly, Inc. and its subsidiaries, unless the context indicates otherwise.

Initial Public Offering ("IPO")

On May 21, 2019 we completed an IPO in which we sold 12,937,500 shares of our newly authorized Class A common stock, which included 1,687,500 shares sold pursuant to the exercise by the underwriters of an option to purchase additional shares, at the public offering price of \$16.00 per share. We received net proceeds of \$192.5 million, after deducting underwriting discounts and commissions, from sales of our shares in the IPO. The net proceeds include additional proceeds of \$25.1 million, net of underwriters' discounts and commissions, from the exercise of the underwriters' option to purchase an additional 1,687,500 shares of our Class A common stock. Prior to the closing of the IPO, all shares of common stock then outstanding were reclassified as Class B common stock.

Immediately upon the closing of the IPO, all shares of convertible preferred stock then outstanding were converted into 53,630,213 shares of Class B common stock on a one-to-one basis. Prior to the IPO, we had seven outstanding series of convertible preferred stock each with a par value of \$0.00002 per share, convertible at the option of the holder, that was classified as temporary equity on our consolidated balance sheet. On May 17, 2019, immediately upon closing of the IPO, our convertible preferred stock was automatically converted to shares of our Class B common stock. As of both December 31, 2021 and 2020, we had zero convertible preferred stock issued or outstanding.

Follow-on Public Offering

On May 26, 2020, we completed a follow-on public offering in which we sold 6,900,000 shares of Class A common stock, which included 900,000 shares sold pursuant to the exercise by the underwriters of an option to purchase additional shares, at the public offering price of \$41.50 per share. We received net proceeds of \$274.9 million, after deducting underwriting discounts and commissions, from sales of our shares in the public offering.

Conversion of Dual Class Common Stock Structure

On October 12, 2020, the outstanding shares of our Class B common stock represented less than 10% of the aggregate number of shares of the then outstanding Class A common stock and Class B common stock. As a result, all our outstanding shares of Class B common stock automatically converted into the same number of shares of Class A common stock on July 12, 2021, pursuant to the terms of our amended and restated certificate of incorporation (the "Certificate"). Upon the conversion outstanding options denominated in shares of Class B common stock issued under any of our equity incentive plans remained unchanged, except that they now represent the right to receive shares of Class A common stock. In accordance with the Certificate, the shares of Class B common stock that converted to Class A common stock were retired and will not be reissued by us.

2. Summary of Significant Accounting Policies

Basis of Presentation

The consolidated financial statements and accompanying notes have been prepared in accordance with United States generally accepted accounting principles ("U.S. GAAP").

Certain changes in presentation have been made to conform the prior period presentation to the current period reporting. Such reclassifications did not affect total revenues, operating income, or net income. We have made certain presentation changes, to distinguish and disclose as a separate line item, our non-current marketable securities balance from our other assets

line in the Consolidated Balance Sheets. We have made certain presentation changes to distinguish and disclose as separate line items, the amortization of intangible assets and depreciation expenses within operating cash flows in the Consolidated Statements of Cash Flows.

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All intercompany transactions and balances have been eliminated in consolidation.

Use of Estimates

The preparation of our consolidated financial statements requires us to make estimates, judgments, and assumptions that affect the reported amounts of assets, liabilities, revenue, costs and expenses, and related disclosures. Actual results and outcomes could differ significantly from our estimates, judgments, and assumptions. Significant estimates, judgments, and assumptions used in these financial statements include, but are not limited to, those related to revenue, accounts receivable and related reserves, fair value of assets acquired and liabilities assumed for business combinations, useful lives and realizability of long-lived assets including our goodwill and intangible assets, income tax reserves, and accounting for stock-based compensation. Estimates are periodically reviewed in light of changes in circumstances, facts, and experience. The effects of material revisions in estimates are reflected in the consolidated financial statements in the period of change and prospectively from the date of the change in estimate.

The ongoing global COVID-19 pandemic has adversely impacted many operational aspects of our business and may continue to do so in the future. Since the start of the global pandemic, we have assessed the impact that COVID-19 had on our results of operations, including, but not limited to an assessment of our allowance for credit losses, the carrying value of short-term and long-term marketable securities, the carrying value of goodwill and other long-lived assets, and the impact to revenue recognition and cost of revenues. The future impacts of the pandemic and any resulting economic impact are largely unknown and continuing to evolve. We will continue to actively monitor the impact that COVID-19 has on the results of our business operations, and may make decisions required by federal, state or local authorities, or that are determined to be in the best interests of our employees, customers, partners, suppliers and stockholders. As a result, our estimates and judgments may change materially as new events occur or additional information becomes available to us.

Cash, Cash Equivalents and Marketable Securities

We invest our excess cash primarily in short-term fixed income securities, including government and investment-grade debt securities and money market funds. We classify all liquid investments with stated maturities of three months or less from date of purchase as cash equivalents. Marketable securities with original maturities greater than three months from purchase date and remaining maturities less than one year are classified as short-term marketable securities. Marketable securities with remaining maturities greater than one year as of the balance sheet date and which we intend to hold for greater than one year, are classified as long-term marketable securities. The fair market value of cash equivalents at December 31, 2021 and 2020 approximated their carrying value. Cost of securities sold is based on specific identification. We determine the appropriate classification of our investments in marketable securities at the time of purchase and reevaluate such designation at each balance sheet date. We have classified and accounted for our marketable securities as available-for-sale. After considering our capital preservation objectives, as well as our liquidity requirements, we may sell securities prior to their stated maturities. We carry our available-for-sale securities at fair value, and report the unrealized gains and losses as a component of other comprehensive loss, except for unrealized losses determined to be other-than-temporary which are recorded as other expense, net. We determine any realized gains or losses on the sale of marketable securities on a specific identification method and record such gains and losses as a component of other expense, net. Interest earned on cash, cash equivalents, and marketable securities was approximately \$1.3 million, \$1.4 million, and \$3.1 million during the years ended December 31, 2021, 2020 and 2019, respectively. These balances are recorded in interest income in the accompanying Consolidated Statement of Operations.

We evaluate the investments periodically for possible other-than-temporary impairment. A decline in fair value below the amortized costs of debt securities is considered an other-than-temporary impairment if we have the intent to sell the security or it is more likely than not that we will be required to sell the security before recovery of the entire amortized cost basis. In those instances, an impairment charge equal to the difference between the fair value and the amortized cost basis is recognized in other expense. Regardless of our intent or requirement to sell a debt security, impairment is considered other-than-temporary if we do not expect to recover the entire amortized cost basis.

Restricted Cash

As of December 31, 2021 and 2020, we had restricted cash balance of \$0.9 million and \$1.0 million, respectively, of which \$0.9 million consists of letters of credit related to lease arrangements that are collateralized by restricted cash. These are included in other assets on our Consolidated Balance Sheets.

Accounts Receivable, net

Accounts receivable are recorded and carried at the original invoiced amount less an allowance for any potential uncollectible amounts. We determine our trade accounts receivable allowances in line with the current expected credit losses model, based upon the assessment of various factors, such as: historical experience, credit quality of our customers, age of the accounts receivable balances, geographic related risks, economic conditions, and other factors that may affect a customer's ability to pay. Increases and decreases in the allowance for credit losses are included as a component of General and administrative expense in the Consolidated Statements of Operations. We do not have any off-balance sheet credit exposure related to our customers.

Incremental Costs to Obtain a Contract with a Customer

We capitalize incremental costs associated with obtaining customer contracts, specifically certain commission payments. We pay commissions based on contract value upon signing a new arrangement with a customer and upon renewal and upgrades of existing contracts with customers only if the renewal and upgrades result in an incremental increase in contract value. To the extent that renewals and upgrades do not result in an increase in contract value, no additional commissions are paid. These costs are deferred on our Consolidated Balance Sheets and amortized over the expected period of benefit on a straight-line basis. We also incur commission expense on an ongoing basis based upon revenue recognized. In these cases, no incremental costs are deferred, as the commissions are earned and expensed in the same period for which the associated revenue is recognized. Based on the nature of our unique technology and services, and the rate at which we continually enhance and update our technology, the expected life of the customer arrangement is determined to be approximately five years. Commissions for new arrangements and renewals are both amortized over five years. Amortization is primarily included in sales and marketing expense in the consolidated statements of operations. Deferred commission and incentive payments are included in other assets on our Consolidated Balance Sheets.

Concentrations of Credit Risk

Financial instruments that potentially subject us to significant concentration of credit risk consist primarily of cash, cash equivalents, marketable securities, and accounts receivable. The primary focus of our investment strategy is to preserve capital and meet liquidity requirements. Our investment policy addresses the level of credit exposure by limiting the concentration in any one corporate issuer or sector and establishing a minimum allowable credit rating. To manage the risk exposure, we invest cash equivalents and marketable securities in a variety of fixed income securities, including government and investment-grade debt securities and money market funds. We place our cash primarily in checking and money market accounts with reputable financial institutions. Deposits held with these financial institutions may exceed the amount of insurance provided on such deposits, if any.

Concentrations of credit risk with respect to accounts receivable are primarily limited to certain customers from which we generate significant revenue. Our customer base consists of a large number of geographically dispersed customers diversified across several industries. To reduce this risk, we routinely assess the financial strength of our customers. Based on such assessments, we believe that our accounts receivable credit risk exposure is limited. No customer accounted for more than 10% of revenue for the years ended December 31, 2021 and 2020. No customer accounted for more than 10% of the total accounts receivable balance as of December 31, 2021, and one customer accounted for 10% of the total accounts receivable balance as of December 31, 2020.

Fair Value of Financial Instruments

Our financial instruments consist of cash and cash equivalents, marketable securities, accounts receivable, accounts payable, accrued expenses and debt. Cash equivalents, accounts receivable, accounts payable, and accrued expenses are stated at their carrying value, which approximates fair value due to the short time until the expected receipt or payment date. We measure marketable securities at fair value, using quoted market prices or alternative pricing sources and models utilizing market observable inputs. The carrying amount of our debt approximates fair value as the stated interest rate approximates market rates currently available to us.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation and amortization. Depreciation and amortization are computed on a straight-line basis over the estimated useful lives of the assets. The estimated useful life of each asset category is as follows:

Computer and networking equipment	3-5 years
Leasehold improvements	Shorter of lease term or 5 years
Furniture and fixtures	3 years
Office equipment	3 years
Internal-use software	3 years

We periodically review the estimated useful lives of property and equipment and any changes to the estimated useful lives are recorded prospectively from the date of the change.

Upon retirement or sale, the cost of the assets disposed of and the related accumulated depreciation are removed from the accounts, and any resulting gain or loss is included in other income (expense), net in the Consolidated Statements of Operations. Repairs and maintenance costs are expensed as incurred.

Internal-Use Software Development Costs

Labor and related costs associated with internal-use software during the application development stage are capitalized. Capitalization of costs begins when the preliminary project stage is completed, management has committed to funding the project, and it is probable that the project will be completed and the software will be used to perform the function intended. Capitalization ceases at the point when the project is fully tested and substantially complete and is ready for its intended purpose. The capitalized amounts are included in property and equipment, net on the Consolidated Balance Sheets. We amortize such costs over the estimated useful life of the software. We amortize completed internal-use software that is used on our network is amortized to cost of revenue over its estimated useful life. Costs incurred during the planning, training, and post-implementation stages of the software development life-cycle are expensed as incurred.

Business Combinations

We account for our acquisitions using the acquisition method of accounting, which requires, among other things, allocation of the fair value of purchase consideration to the tangible and intangible assets acquired and liabilities assumed at their estimated fair values on the acquisition date. The excess of the fair value of purchase consideration over the values of these identifiable assets and liabilities is recorded as goodwill. Acquisition costs, such as legal and consulting fees, are expensed as incurred.

Accounting for business combinations requires us to make significant estimates and assumptions, especially at the acquisition date with respect to tangible and intangible assets acquired and liabilities assumed. We use our best estimates and assumptions to accurately assign fair value to the tangible and intangible assets acquired and liabilities assumed at the acquisition date as well as the useful lives of those acquired intangible assets. Examples of critical estimates in valuing certain of the intangible assets and goodwill we have acquired include but are not limited to future expected cash flows from acquired developed technologies; the acquired company's trade name, existing customer relationships and backlog. These estimates are inherently uncertain and unpredictable, and if different estimates were used the purchase price for the acquisition could be

allocated to the acquired assets and liabilities differently from the allocation that we have made. Additionally, unanticipated events and circumstances may occur, which may affect the accuracy or validity of such assumptions, estimates or actual results.

The authoritative guidance allows a measurement period of up to one year from the date of acquisition to make adjustments to the preliminary allocation of the purchase price. As a result, during the measurement period we may record adjustments to the fair values of assets acquired and liabilities assumed, with the corresponding offset to goodwill to the extent that it identifies adjustments to the preliminary purchase price allocation. Upon conclusion of the measurement period or final determination of the values of the assets acquired and liabilities assumed, whichever comes first, any subsequent adjustments will be recorded to the Consolidated Statement of Operations.

Goodwill, Intangible Assets and Other Long-Lived Assets

Goodwill is the amount by which the cost of acquired net assets in a business combination exceeds the fair value of the net identifiable assets on the date of purchase and is carried at its historical cost. We test goodwill for impairment on an annual basis or more frequently if events or changes in circumstances indicate that the asset might be impaired. We determined that we operate as one reporting unit and we perform our annual impairment test of goodwill as of October 31 and whenever events or circumstances indicate that the asset might be impaired. We did not record any impairment to goodwill during the years ended December 31, 2021, 2020, and 2019.

Intangible assets with determinable economic lives are carried at cost, less accumulated amortization. Amortization is computed over the estimated useful life of each asset on a straight-line basis. We determine the useful lives of identifiable intangible assets after considering the specific facts and circumstances related to each intangible asset. Factors we consider when determining useful lives include the contractual term of any agreement related to the asset, the historical performance of the asset, our long-term strategy for using the asset, any laws or other local regulations which could impact the useful life of the asset and other economic factors, including competition and specific market conditions. Intangible assets without determinable economic lives are carried at cost, not amortized, and reviewed for impairment at least annually.

The useful lives of our intangible assets are as follows:

Customer relationships	8 years
Developed technology	5 years
Trade names	3 years
Backlog	2 years
Domain names	3 years
Internet protocol addresses	10 years
IPR&D	Indefinite

Long-lived assets, including property and equipment and intangible assets, are reviewed for impairment whenever events or changes in circumstances, such as service discontinuance, technological obsolescence, significant decreases in our market capitalization, facility closures, or work-force reductions indicate that the carrying amount of the long-lived asset or asset group may not be recoverable. When such events occur, we compare the carrying amount of the asset or asset group to the undiscounted expected future cash flows related to the asset or asset group. If this comparison indicates that an impairment is present, the amount of the impairment is calculated as the difference between the carrying amount and the fair value of the asset or asset group.

Leases

We lease office space and data centers ("Colocation leases") under non-cancelable operating leases with various expiration dates through 2027. We also lease server equipment under non-cancelable operating finance leases with various expiration dates through 2024. We determine if an arrangement contains a lease at inception.

Operating lease right-of-use assets and lease liabilities are recognized at the present value of the future lease payments at commencement date. The interest rate implicit in our operating leases is not readily determinable, and therefore an incremental borrowing rate is estimated to determine the present value of future payments. The estimated incremental borrowing rate factors in a hypothetical interest rate on a collateralized basis with similar terms, payments, and economic environments. Operating lease right-of-use assets also include any prepaid lease payments and lease incentives.

Certain of the operating lease agreements contain rent concession, rent escalation, and option to renew provisions. Rent concession and rent escalation provisions are considered in determining the single lease cost to be recorded over the lease term. Single lease cost is recognized on a straight-line basis over the lease term commencing on the date we have the right to use the leased property. The lease terms may include options to extend or terminate the lease. We generally use the base, non-cancelable, lease term when recognizing the lease assets and liabilities, unless it is reasonably certain that the option will be exercised. Our lease agreements may contain variable costs such as common area maintenance, operating expenses or other costs. Variable lease costs are expensed as incurred on the consolidated statements of operations. Our lease agreements generally do not contain any residual value guarantees or restrictive covenants.

We lease networking equipment from a third party, through equipment finance leases. These leases include a bargain purchase option, resulting in a full transfer of ownership at the completion of the lease term.

Operating leases are reflected in operating lease right-of-use assets, operating lease liabilities, and operating lease liabilities, non-current on our consolidated balance sheets. Finance leases are included in property and equipment, net, finance lease liabilities, and finance lease liabilities, non-current on our consolidated balance sheets.

Convertible Debt

We early adopted ASU 2020-06 as of January 1, 2021, which in effect, allows for the separation models for convertible debt that contain cash conversion features accounted for as a cash conversion or beneficial conversion features to be removed. We evaluated the terms of our debt in line with ASU 2020-06 and concluded that the instrument does not require separation and that there were no other derivatives that required separation. We have combined these features with the host contract and we account for our convertible debt as a single liability in long-term debt on our condensed consolidated balance sheet. The carrying amount of the liability is based on the gross proceeds, net of the unamortized transaction costs incurred related to the issuance of the convertible debt instrument. This difference represents a debt discount that is amortized to interest expense over the term of the convertible debt instrument using the effective interest rate method. We apply the if-converted method for calculation of diluted earnings per share for our convertible debt instrument.

Revenue Recognition

Refer to Note 3, "Revenues" in the Notes to Consolidated Financial Statements for our Revenue Recognition policy.

Cost of Revenue

Cost of revenue consists primarily of fees paid to network providers for bandwidth and to third-party network data centers for housing servers, also known as colocation costs. Cost of revenue also includes employee costs for network operation, build-out and support and services delivery, network storage costs, cost of managed services and software-as-a-service, depreciation of network equipment used to deliver our services, and amortization of network-related internal-use software. We enter into contracts for bandwidth with third-party network providers with terms of typically one year. These contracts generally commit us to pay minimum monthly fees plus additional fees for bandwidth usage above the committed level. We enter into contracts for colocation services with third-party providers with terms of typically three years.

Research and Development Costs

Research and development costs consist of primarily payroll and related personnel costs for the design, development, deployment, testing, and enhancement of our edge cloud platform. Costs incurred in the development of our edge cloud platform are expensed as incurred, excluding those expenses which met the criteria for development of internal-use software.

Advertising Expense

We recognize advertising expense as incurred. We recognized total advertising expense of approximately \$2.3 million, \$3.8 million and \$1.4 million for the years ended December 31, 2021, 2020, and 2019, respectively.

Accounting for Stock-Based Compensation

We account for stock-based employee compensation plans under the fair value recognition and measurement provisions, which require all stock-based payments, including grants of stock options, restricted stock units ("RSUs"), restricted stock awards ("RSAs"), performance stock awards ("PSUs") and shares issued under our Employee Stock Purchase Plan ("ESPP") to be measured based on the grant-date fair value of the award and recognized as expense over the requisite service period, which is generally the vesting period of the respective award. We account for forfeitures as they occur.

The fair value of RSUs and RSAs granted to our employees and directors is based on the grant date fair value. The fair value of PSUs granted to our employees is based on the fair value determined when the performance metrics were set. The fair value of stock options granted to our employees and directors, and of the shares to be issued under our ESPP are based on the Black-Scholes option-pricing model. The determination of the fair value of a stock-based award is affected by the deemed fair value of the underlying stock price on the grant date, as well as assumptions regarding a number of other complex and subjective variables. These variables include the fair value of our common stock, the expected stock price volatility over the expected term of the options, stock option exercise and cancellation behaviors, risk-free interest rates, and expected dividends:

These assumptions and estimates are as follows:

- *Fair Value of Common Stock.* We use the market closing price of our Class A common stock, as reported on the New York Stock Exchange, for the fair value. Prior to our IPO, our board of directors considered numerous objective and subjective factors to determine the fair value of our common stock at each meeting at which awards are approved. These factors included, but were not limited to (i) contemporaneous third-party valuations of Common Stock; (ii) the rights and preferences of Series Preferred relative to Common Stock; (iii) the lack of marketability of Common Stock; (iv) developments in the business; and (v) the likelihood of achieving a liquidity event, such as an IPO or sale of the Company, given prevailing market conditions.
- *Expected Term.* The expected term represents the period that our stock-based awards are expected to be outstanding. The expected term assumptions were determined based on the vesting terms, exercise terms, and contractual lives of the options. The expected term was estimated using the simplified method allowed under Securities and Exchange Commission (SEC) guidance.
- *Volatility.* The expected volatility is derived from an average of the historical stock volatilities of the common stock of the Company. In prior years the expected volatility calculation also included the historical stock volatilities of comparable companies as we did not have a long enough trading history of our common stock. Comparable companies consist of public companies in our industry, which are similar in size, stage of life cycle, and financial leverage.
- *Risk-free Interest Rate.* The risk-free interest rate used in the Black-Scholes option pricing model is the implied yield available on U.S. Treasury zero-coupon issues with a remaining term equivalent to that of the options for each expected term.
- *Dividend Yield.* The expected dividend assumption is based on our current expectations of our anticipated dividend policy. We have no history of paying any dividends and therefore used an expected dividend yield of zero.

Foreign Currency Translation

The functional currency of our foreign subsidiaries is the U.S. dollar. The local currencies of our foreign subsidiaries are the Australian dollar, British pound, Euros, Japanese yen, and the Swedish Kroner or the Japanese yen as the functional currency. Our foreign subsidiaries remeasure monetary assets and liabilities at period-end exchange rates, while non-monetary items are remeasured at historical rates. Revenue and expenses are remeasured at the average rate in effect during the period. Resulting currency translation adjustments are recorded as a component of accumulated other comprehensive loss, a separate component of stockholders' equity. Gains and losses on intercompany and other non-functional currency transactions are recorded in other income (expense), net.

Income Taxes

We account for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, we determine deferred tax assets and liabilities on the basis of the differences between the financial statement and tax bases of assets and liabilities by using enacted tax rates for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

We recognize deferred tax assets to the extent that it believes that these assets are more likely than not to be realized. In making such a determination, we consider all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies, and results of recent operations. If we determine that it would be able to realize its deferred tax assets in the future in excess of their net recorded amount, we would make an adjustment to the deferred tax asset valuation allowance, which would reduce the provision for income taxes.

We record uncertain tax positions in accordance with ASC 740 on the basis of a two-step process in which (1) it determines whether it is more likely than not that the tax positions will be sustained on the basis of the technical merits of the position and (2) for those tax positions that meet the more-likely-than-not recognition threshold, we recognize the largest amount of tax benefit that is more than 50 percent likely to be realized upon ultimate settlement with the related tax authority.

We recognize interest and penalties related to unrecognized tax benefits on the income tax expense line in the accompanying Consolidated Statement of Operations and Comprehensive Loss. Accrued interest and penalties are included in accrued expenses on the Consolidated Balance Sheet.

Comprehensive Loss

Comprehensive loss consists of two components: net loss and other comprehensive income (loss). Other comprehensive income (loss) refers to gains and losses that are recorded as an element of stockholders' equity and are excluded from net loss. Our other comprehensive income (loss) is comprised of foreign currency translation adjustments and gain (loss) on investments in available-for-sale securities.

Net Loss Per Share Attributable to Common Stockholders

Basic and diluted net loss per share attributable to common stockholders is presented in conformity with the two-class method required for multiple classes of common stock and participating securities. Under the two-class method, net income is attributed to common stockholders and participating securities based on their participation rights. Under the two-class method, basic net loss per share attributable to common stockholders is computed by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding during the period. We do not consider the restricted stock awards and common stock issued upon early exercise of stock options as participating securities. Diluted earnings per share attributable to common stockholders adjusts basic earnings per share for the potentially dilutive impact of stock options, restricted stock units, restricted stock awards, shares issuable under our employee stock purchase plan and performance stock awards. We also apply the if-converted method for calculation of diluted per share for our convertible debt instruments. As we have reported losses for all periods presented, all potentially dilutive securities are antidilutive and accordingly, basic net loss per share equals diluted net loss per share.

On October 12, 2020, the outstanding shares of our Class B common stock represented less than 10% of the aggregate number of shares of the then outstanding Class A common stock and Class B common stock. As a result, all outstanding shares of Class B common stock automatically converted into the same number of shares of Class A common stock on July 12, 2021, pursuant to the terms of our amended and restated certificate of incorporation (the "Certificate"). In accordance with the Certificate, the shares of Class B common stock that converted to Class A common stock were retired and will not be reissued by us.

Recently Adopted Accounting Pronouncements

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*. This ASU was issued to provide temporary optional guidance to ease the potential burden in accounting for reference rate reform. The guidance provides optional expedients and exceptions for applying generally accepted accounting principles to contract modifications and hedging relationships, subject to meeting certain criteria, that reference London Inter-Bank Offered Rate or another reference rate expected to be discontinued. The last expedient is a one-time election to sell or transfer debt securities classified as held to maturity. The expedients are in effect from March 12, 2020, through December 31, 2022. In January 2021, the FASB issued ASU No. 2021-01, *Reference Rate Reform (Topic 848): Scope*. The amendments in this Update are elective and apply to all entities that have derivative instruments that use an interest rate for margining, discounting, or contract price alignment that is modified as a result of reference rate reform. The amendments clarify certain optional expedients and exceptions in Topic 848 for contract modifications apply to derivatives that are affected by the discounting transition. The amendments are in effect from March 12, 2020, through December 31, 2022. This ASU does not have a material impact on the Company's consolidated financial statements. As of December 31, 2021, there was no impact to the Company's Consolidated Financial Statements related to [ASU 2020-04](#) and/or [ASU 2021-01](#).

On December 18, 2019, the FASB released ASU 2019-12 which affects general principles within Topic 740, Income Taxes. The amendments of ASU 2019-12 are meant to simplify and reduce the cost of accounting for income taxes. The FASB has stated that the ASU is being issued as part of its Simplification Initiative, which is meant to reduce complexity in accounting standards by improving certain areas of generally accepted accounting principles ("U.S. GAAP") without compromising information provided to users of financial statements. The standard is effective for public companies on the first interim period within the annual period beginning after December 15, 2020. We adopted this standard on January 1, 2021. The adoption of this standard did not have a material impact on our consolidated financial statements.

In August 2020, the FASB issued ASU No. 2020-06, Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40). The update removes separation models for convertible debt that contain cash conversion features accounted for as a cash conversion or beneficial conversion features. Under this ASU, these features will be combined with the host contract. ASU 2020-06 does not impact the accounting treatment for conversion features that are accounted for as a derivative under Topic 815. The update also requires the application of the if-converted method to be used for convertible instruments and the effect of potential share settlement be included in the diluted earnings per share calculation when an instrument may be settled in cash or shares. The amendments in this update are effective for public business entities for fiscal years beginning after December 15, 2021, and interim periods within those fiscal years. The amendment is to be adopted through either a fully retrospective or modified retrospective method of transition, only at the beginning of an entity's fiscal year. Early adoption is permitted. We have elected to early adopt the standard as of January 1, 2021 using the modified retrospective method of transition. As of the date of adoption, we determined that we had no debt with conversion features or other derivative features that would require separation. As a result, we recorded our convertible debt as a single liability within long-term debt on our Condensed Consolidated Balance Sheet. We use the if-converted method for calculation of diluted earnings per share for our convertible debt instruments.

In February 2016, the FASB issued new guidance, Accounting Standard Update No. 2016-02, Leases (Topic 842) ("ASU 2016-02"), which establishes the principles to report transparent and economically neutral information about the assets and liabilities that arise from leases. Accordingly, this new standard introduces a lessee model that brings most operating leases on the balance sheet and also aligns certain of the underlying principles of the new lessor model with those in the new revenue recognition standard.

We adopted the standard on December 31, 2020, presenting the initial application of ASC 842 beginning on January 1, 2020 (i.e. adoption effective date), using the modified retrospective approach and has elected to use the optional transition method which allows us to apply the guidance of ASC 840, including disclosure requirements, in the comparative periods presented. In addition, we elected the package of practical expedients permitted under the transition guidance within the new

standard, which among other things, allowed us to carry forward the historical lease classification related to agreements entered prior to adoption. We have also elected the: (i) short-term lease recognition exemption for all leases that qualify, whereby we will not recognize right-of-use ("ROU") assets or lease liabilities for existing short-term leases of those assets in transition; (ii) practical expedient to not separate lease and non-lease components for all of our leases; and (iii) use hindsight in determining the lease term, assessing the likelihood that a lease purchase option will be exercised and in assessing the impairment of right-of-use assets.

Upon adoption of ASC 842, we recognized \$54.7 million of ROU assets and \$56.3 million of lease obligations related to operating leases, which represents the present value of the lease payments discounted using our incremental borrowing rate ("IBR"). The accounting for finance leases remained unchanged as compared to ASC 840. The cumulative impact of transition to retained earnings, recorded as of the adoption date, was not material. The cumulative effect adjustment recorded to accumulated deficit as of the adoption date was not material. The adoption of ASC 842 did not materially impact our consolidated statements of operations or cash flows.

In June 2016, FASB issued new guidance, *ASU 2016-13, Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, which introduces a new methodology for accounting for credit losses on financial instruments, including available-for-sale debt securities. The guidance establishes a new "expected loss model" that requires entities to estimate current expected credit losses on financial instruments by using all practical and relevant information. Any expected credit losses are to be reflected as allowances rather than reductions in the amortized cost of available-for-sale debt securities. We adopted the standard on December 31, 2020, presenting the initial application beginning on January 1, 2020 (i.e. adoption effective date). The adoption of this standard did not have a material impact on our consolidated financial statements.

In August 2018, the FASB issued Accounting Standards Update No. 2018-15, *Intangibles—Goodwill and Other—Internal-Use Software* (ASC 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement ("ASU 2018-15"). This guidance provides that implementation costs be evaluated for capitalization using the same criteria as that used for internal-use software development costs, with amortization expense being recorded in the same income statement expense line as the hosted service costs and over the expected term of the hosting arrangement. We adopted the standard on December 31, 2020, presenting the initial application beginning on January 1, 2020 (i.e. adoption effective date). The adoption of this standard did not have a material impact on our consolidated financial statements.

Recently Issued Accounting Standards

In October 2021, the FASB issued *ASU No. 2021-08, Accounting for Contract Assets and Contract Liabilities from Contracts with Customers (Topic 805)*. This ASU requires an acquirer in a business combination to recognize and measure contract assets and contract liabilities (deferred revenue) from acquired contracts using the revenue recognition guidance in Topic 606. At the acquisition date, the acquirer applies the revenue model as if it had originated the acquired contracts. The ASU is effective for annual periods beginning after December 15, 2022, including interim periods within those fiscal years. Adoption of the ASU should be applied prospectively. Early adoption is also permitted, including adoption in an interim period. If early adopted, the amendments are applied retrospectively to all business combinations for which the acquisition date occurred during the fiscal year of adoption. This ASU is currently not expected to have a material impact on our consolidated financial statements.

3. Revenue

Revenue recognition

Revenue is recognized upon transfer of control of promised products or services to customers in an amount that reflects the consideration we expect to receive in exchange for those products or services. The processing and recording of certain revenue requires a manual process, which uses a complex set of procedures to generate complete and accurate data to record these revenue transactions. We enter into contracts that can include various combinations of products and services, each of which are distinct and accounted for as separate performance obligations. Revenue is recognized net of any taxes collected from customers, which are subsequently remitted to governmental authorities.

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer and is the unit of account. Our contracts with customers often include promises to transfer multiple products and services to a customer. Determining whether products and services are considered distinct performance obligations that should be accounted for separately versus together may require significant judgment. For contracts with multiple performance obligations, we allocate the contract transaction price to each performance obligation using our estimate of the standalone selling price ("SSP") of each distinct good or service in the contract.

Judgment is required to determine the SSP for each distinct performance obligation. We analyze separate sales of our products and services as a basis for estimating the SSP of our products and services. We then use the SSP as the basis for allocating the transaction price when our product and services are sold together in a contract with multiple performance obligations. In instances where SSP is not directly observable, such as when we do not sell the product or service separately, we determine the SSP using information that may include market conditions and other observable inputs. We typically have more than one SSP for individual products and services due to the stratification of those products and services by customers and circumstances. In these instances, we may use information, such as geographic region and distribution channel, in determining the SSP.

The transaction price in a contract for usage-based services is typically equal to the minimum commit price in the contract less any discounts provided. The transaction price in a contract that does not contain usage-based services is equal to the total contract value. Because our typical contracts represent distinct services delivered over time with the same pattern of transfer to the customer, usage-based consideration primarily related to actual consumption over the minimum commit levels is allocated to the period to which it relates. The amount of consideration recognized for usage above the minimum commit price is limited to the amount we expect to be entitled to receive in exchange for providing services. We have elected to apply the practical expedient for estimating and disclosing the variable consideration when 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 from our remaining performance obligations under these contracts.

Performance obligations represent stand-ready obligations that are satisfied over time as the customer simultaneously receives and consumes the benefits provided by us. These obligations can be content delivery, security, subscription services, professional services, support, edge cloud platform services, and others. Accordingly, our revenue is recognized over time, consistent with the pattern of benefit provided to the customer over the term of the agreement.

At times, customers may request changes that either amend, replace, or cancel existing contracts. Judgment is required to determine whether the specific facts and circumstances within the contracts should be accounted for as a separate contract or as a modification.

In contracts where there are timing differences between when we transfer a promised good or service to the customer and when the customer pays for that good or service, we have determined our contracts do not include a significant financing component. We have also elected the practical expedient to not measure financing components for any contract where the timing difference is less than one year.

Nature of products and services

We primarily derive revenue from the sale of services to customers executing contracts in which the standard contract term is one year, although terms may vary by contract. Most of our contracts are non-cancelable over the contractual term. The majority of our usage based contracts commit the customer to a minimum monthly level of usage and specify the rate at which the customer must pay for actual usage above the monthly minimum. Beginning in the fourth quarter of 2020, we also offer subscriptions to access a unified security web application and application programming interface at a fixed rate.

Revenue by geography is based on the billing address of the customer. Aside from the United States, no other single country accounted for more than 10% of revenue for the years ended December 31, 2021, 2020 and 2019.

The following table presents our net revenue by geographic region:

	Year ended December 31,		
	2021	2020	2019
	(in thousands)		
United States	\$ 260,399	\$ 196,538	\$ 142,842
Asia Pacific	39,496	44,060	18,806
Europe	35,177	32,768	27,595
All other countries	19,258	17,508	11,219
Total revenue	<u>\$ 354,330</u>	<u>\$ 290,874</u>	<u>\$ 200,462</u>

The majority of our revenue is derived from enterprise customers, which are defined as customers with revenue in excess of \$100,000 over the previous 12-month period. The following table presents our net revenue for enterprise and non-enterprise customers:

	Year ended December 31,		
	2021	2020	2019
	(in thousands)		
Enterprise customers	\$ 313,360	\$ 256,483	\$ 174,926
Non-enterprise customers	40,970	34,391	25,536
Total revenue	<u>\$ 354,330</u>	<u>\$ 290,874</u>	<u>\$ 200,462</u>

Contract balances

The timing of revenue recognition may differ from the timing of invoicing to customers. We have an unconditional right to consideration when we invoice our customers and record a receivable. We record a contract asset when revenue is recognized prior to invoicing, or a contract liability (deferred revenue) when revenue is recognized subsequent to invoicing.

Deferred revenue includes amounts billed to customers for which revenue has not been recognized and consists of the unearned portions of edge cloud platform usage and billings to customers for our security subscription services. Amounts that have been invoiced for annual subscriptions, but not collected, are recorded in accounts receivable and in unearned revenue or in revenue depending on whether services have been delivered to the customer. Our payment terms and conditions vary by contract type. Payment terms on invoiced amounts are at an average of 30 days.

The following presents our contract assets and contract liabilities as of and for the years ended December 31, 2021 and 2020:

	As of December 31, 2021		As of December 31, 2020	
	(in thousands)			
Contract assets	\$	89	\$	387
Contract liabilities	\$	28,907	\$	18,020

The following table presents the revenue recognized during the years ended December 31, 2021 and 2020 from amounts included in the contract liability at the beginning of the period:

	Year ended December 31, 2021	Year ended December 31, 2020
	(in thousands)	
Revenue recognized in the period from:		
Amounts included in contract liability at the beginning of the period	\$ 15,948	\$ 310

Remaining performance obligations

As of December 31, 2021, we had \$152.3 million of remaining performance obligations, which includes deferred revenue and amounts that will be invoiced and recognized in future periods, respectively. We apply the practical expedient of ASC 606, which gives us the optional exemption from disclosing certain information about our remaining performance obligations for our service contracts for which the original contract duration is one year or less, such as the aggregate transaction price allocated to the performance obligations that are unsatisfied (or partially unsatisfied) as of the end of the reporting period. The typical contract term is one year, although terms may vary by contract. We expect to recognize 81% of this balance over the next 12 months and the remainder within the following year.

Costs to obtain a contract

As of December 31, 2021 and December 31, 2020, our costs to obtain contracts were as follows:

	As of December 31, 2021	As of December 31, 2020
	(in thousands)	
Deferred contract costs, net	\$ 23,830	\$ 19,332

During the years ended December 31, 2021, 2020 and 2019, we recognized \$6.3 million, \$3.5 million and \$2.3 million of amortization related to deferred contract costs, respectively. These costs are recorded within the sales and marketing line item on the accompanying Consolidated Statements of Operations.

4. Investments and Fair Value Measurements

Our total cash, cash equivalents and marketable securities consisted of the following:

	As of December 31,	
	2021	2020
	(in thousands)	
Cash and cash equivalents:		
Cash	\$ 134,774	\$ 21,273
Money market funds	31,294	36,629
Commercial paper	—	4,998
Total cash and cash equivalents	<u>166,068</u>	<u>\$ 62,900</u>
Marketable securities:		
U.S. Treasury securities	\$ 184,946	\$ 75,524
Corporate notes and bonds	11,327	\$ 14,314
Commercial paper	124,089	41,445
Asset-backed securities	21,576	—
Municipal securities	2,250	—
Foreign government and supranational securities	17,607	—
Total short-term marketable securities	<u>\$ 361,795</u>	<u>\$ 131,283</u>
U.S. Treasury securities	239,528	20,448
Corporate notes and bonds	197,298	—
Asset-backed securities	77,142	—
Municipal securities	2,312	—
Foreign government and supranational securities	12,631	—
Total long-term marketable securities	<u>\$ 528,911</u>	<u>\$ 20,448</u>
Total marketable securities	<u>\$ 890,706</u>	<u>\$ 151,731</u>

Our long-term marketable securities have remaining maturities that are greater than one year as of the balance sheet date and which we intend to hold for more than one year.

Available-for-Sale Investments

The following table summarizes adjusted cost, gross unrealized gains and losses, and fair value related to available-for-sale securities classified as marketable securities on the accompanying Consolidated Balance Sheets as of December 31, 2021 and December 31, 2020:

	As of December 31, 2021			
	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Fair Value
	(in thousands)			
U.S. Treasury securities	\$ 425,560	\$ 1	\$ (1,086)	\$ 424,475
Corporate notes and bonds	209,550	—	(925)	208,625
Commercial paper	124,098	—	(9)	124,089
Asset-backed securities	98,857	—	(140)	98,717
Municipal securities	4,577	—	(15)	4,562
Foreign government and supranational securities	30,306	—	(68)	30,238
Total available-for-sale investments	<u>\$ 892,948</u>	<u>\$ 1</u>	<u>\$ (2,243)</u>	<u>\$ 890,706</u>

	As of December 31, 2020			
	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Fair Value
	(in thousands)			
U.S. Treasury securities	\$ 95,884	\$ 93	\$ (5)	\$ 95,972
Commercial paper	41,445	—	—	41,445
Corporate notes and bonds	14,297	17	—	14,314
Total available-for-sale investments	<u>\$ 151,626</u>	<u>\$ 110</u>	<u>\$ (5)</u>	<u>\$ 151,731</u>

Cash equivalents include investments with maturity date of three months or less. The majority of our securities classified as available-for-sale as of December 31, 2021 have contractual maturities of one year or less. Certain securities held and classified as available-for-sale as of December 31, 2021, have contractual maturities that are greater than one year. Where we intend to hold the securities for less than 12 months, we classify them as short-term. Where we intend to hold the securities for more than 12 months, we classify them as long-term. As of December 31, 2021, all securities classified as available-for-sale had contractual maturities of one year or less. There were no securities in a continuous loss position for 12 months or longer as of December 31, 2021 and December 31, 2020. Investments are reviewed periodically to identify possible other-than-temporary impairments. No impairment loss has been recorded on the securities included in the tables above, as we believe that the decrease in fair value of these securities is temporary, and we expect to recover at least up to the initial cost of investment for these securities.

Fair Value of Financial Instruments

For certain of our financial instruments, including cash held in banks, accounts receivable, and accounts payable, the carrying amounts approximate fair value due to their short maturities, and are therefore excluded from the fair value tables below.

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. There is a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1—Observable inputs such as quoted prices in active markets for identical assets or liabilities;

Level 2—Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; and

Level 3—Unobservable inputs that are supported by little or no market activity, which require management judgment or estimation.

We measure our cash equivalents and marketable securities at fair value. We classify our cash equivalents and marketable securities within Level 1 or Level 2 because we value these investments using quoted market prices or alternative pricing sources and models utilizing market observable inputs. The fair value of our Level 1 financial assets is based on quoted market prices of the identical underlying security. The fair value of our Level 2 financial assets is based on inputs that are directly or indirectly observable in the market, including the readily available pricing sources for the identical underlying security that may not be actively traded.

Financial assets and liabilities measured and recorded at fair value on a recurring basis consisted of the following types of instruments:

	As of December 31, 2021			
	Level 1	Level 2	Level 3	Total
	(in thousands)			
Cash equivalents:				
Money market funds	\$ 31,294	\$ —	\$ —	\$ 31,294
Total cash equivalents	31,294	—	—	31,294
Marketable securities:				
U.S. Treasury securities	—	424,475	—	424,475
Corporate notes and bonds	—	208,625	—	208,625
Commercial paper	—	124,089	—	124,089
Asset-backed securities	—	98,717	—	98,717
Municipal securities	—	4,562	—	4,562
Foreign government and supranational securities	—	30,238	—	30,238
Total marketable securities	—	890,706	—	890,706
Restricted cash:				
Money market funds	893	—	—	893
Total restricted cash	893	—	—	893
Total financial assets	\$ 32,187	\$ 890,706	\$ —	\$ 922,893

As of December 31, 2021, our remaining restricted cash balance was \$0.9 million, consisting of letters of credit related to lease arrangements that are collateralized by restricted cash. These are included in other assets on the Consolidated Balance Sheets.

	As of December 31, 2020			
	Level 1	Level 2	Level 3	Total
	(in thousands)			
Cash equivalents:				
Money market funds	\$ 36,629	\$ —	\$ —	\$ 36,629
U.S. Treasury securities	—	4,998	—	4,998
Total cash equivalents	36,629	4,998	—	41,627
Marketable securities:				
U.S. Treasury securities	—	95,972	—	95,972
Commercial paper	—	41,445	—	41,445
Corporate notes and bonds	—	14,314	—	14,314
Total marketable securities	—	151,731	—	151,731
Restricted cash:				
Money market funds	980	—	—	980
Total restricted cash	980	—	—	980
Total financial assets	\$ 37,609	\$ 156,729	\$ —	\$ 194,338

There were no transfers of assets and liabilities measured at fair value between Level 1 and Level 2, or between Level 2 and Level 3, during the years ended December 31, 2021 and 2020.

5. Business Combinations

Signal Sciences

On October 1, 2020, we completed the acquisition of Signal Sciences where we acquired 100% of the voting rights of Signal Sciences and it is now our wholly-owned subsidiary. The acquisition is expected to expand our security portfolio and bolster our existing security offerings with our web application and API protection solutions.

Under the terms of the Merger Agreement, we acquired Signal Sciences for an aggregate purchase price of \$759.4 million, consisting of approximately \$223.0 million in cash and the balance in Class A Common Stock and equity consideration of \$536.4 million. A total of 6,367,709 shares were issued of which the fair value of 5,471,210 shares were attributed to purchase price and 896,499 shares, which are restricted as they are subject to revesting conditions, will be included in stock-based compensation as required service is provided. All of these shares have a par value of \$0.00002 per share.

As part of the acquisition, we also assumed the Signal Sciences Corp. 2014 Stock Option and Grant Plan, as amended (the "Signal Plan") and the outstanding unvested options to purchase shares of common stock of Signal Sciences Corp. thereunder, and such options became exercisable to purchase shares of Fastly's Class A common stock, subject to appropriate adjustments to the number of shares and the exercise price of each such option. In connection with the above, we registered 251,754 shares under the Signal Plan.

We assumed the aforementioned unvested options at the completion of the acquisition with an estimated fair value of \$21.8 million. Of the total consideration, \$1.1 million was allocated to the purchase price and \$20.7 million was allocated to future services and will be expensed over the remaining requisite service periods of approximately 2.5 years on a straight-line basis. The estimated fair value of the stock options we assumed was determined using the Black-Scholes option pricing model. The share conversion ratio of 0.1 was applied to convert Signal Sciences' outstanding stock awards into shares of Fastly's common stock.

Of the 6,367,709 shares issued in connection with the acquisition, a restriction was placed on 896,499 shares belonging to the three co-founders of Signal Sciences to make them subject to revesting on a quarterly basis over a 2-year period. Since they are subject to service conditions, they will be accounted for as a post-acquisition compensation expense over the requisite service period, which is also the vesting period of the award. During the year-ended December 31, 2021, 336,188 unvested shares were sold. See 11. Stockholders' Equity for additional information.

We accounted for the transaction as a business combination using the acquisition method of accounting. We allocated the purchase price to the tangible and identifiable intangible assets acquired and liabilities assumed based on their respective estimated fair values on the acquisition date. The fair values assigned to tangible assets acquired and liabilities assumed are based on management's estimates and assumptions and may be subject to change as additional information is received. The determination of the fair value of the intangible assets acquired required management to make significant estimates and assumptions related to forecasted future revenues and selection of the royalty rate and discount rate. Excess purchase price consideration was recorded as goodwill which includes value attributable to the assembled workforce.

The purchase consideration was allocated to the tangible and intangible assets and liabilities acquired as of the acquisition date, with the excess recorded to goodwill as shown below.

	<u>Amount</u>
Assets acquired	
Cash and cash equivalents	\$ 21,501
Other current assets	6,419
Intangible assets, net	124,100
Other non-current assets	8,094
Total assets acquired	\$ 160,114
Liabilities assumed	
Current liabilities	(14,755)
Non-current liabilities	(21,170)
Total liabilities assumed	\$ (35,925)
Net assets acquired	124,189
Total acquisition consideration	759,393
Goodwill Transferred	<u>\$ 635,204</u>

Identifiable finite-lived intangible assets were comprised of the following (in thousands):

	Total	Estimated useful life (in years)
Customer relationships	\$ 69,100	8.0
Developed Technology	\$ 49,500	5.0
Trade name	\$ 3,300	3.0
Backlog	\$ 2,200	2.0
Total intangible assets acquired	<u>\$ 124,100</u>	

The fair values of the acquired developed technology and trade name intangible assets were determined using the relief from royalty method. The fair values of the acquired customer relationships and backlog intangible assets were determined using the multi-period excess earnings method. The acquired intangible assets have a total weighted average amortization period of 6.6 years.

As part of the stock acquisition of Signal Sciences, we allocated a significant value of the acquisition to intangible assets. The deferred tax liability provided an additional source of taxable income to support the realization of the pre-existing deferred tax assets. As a result, a portion of our valuation allowance was released and we recorded a \$13.0 million tax benefit in the year ended December 31, 2020. Please refer to Note 12 — Income Taxes for further details.

During the years ended December 31, 2021 and 2020 , acquisition-related expenses of \$2.5 million and \$20.8 million, respectively, were included within general and administrative expenses on the Consolidated Statements of Operations.

The amounts of revenue and net loss of Signal Sciences included in our consolidated statement of operations from the acquisition date of October 1, 2020 to December 31, 2020 are \$6.7 million and \$23.0 million, respectively.

Pro Forma Financial Information

The following unaudited pro forma information presents the combined results of operations as if the acquisition of Signal Sciences had been completed as of the beginning of our fiscal year 2019. The unaudited pro forma results include adjustments primarily related to the amortization of intangible assets, share-based compensation expense for shares which are restricted as they are subject to revesting conditions, and the inclusion of acquisition costs as of the earliest period presented. There were no material transactions between Fastly and Signal Sciences during the periods presented that would need to be eliminated.

The unaudited pro forma results do not reflect any cost saving synergies from operating efficiencies, or the effect of the incremental costs incurred from integrating these companies. For pro forma purposes, 2020 earnings were adjusted to exclude acquisition-related costs, and 2019 earnings were adjusted to include these costs. Accordingly, these unaudited pro forma results are presented for informational purposes only and are not necessarily indicative of what the actual results of operations of the combined company would have been if the acquisition had occurred at the beginning of the period presented, nor are they indicative of future results of operations.

The unaudited pro forma financial information was as follows (in thousands):

	(Unaudited)			
	As of December 31,			
	2020		2019	
	(in thousands)			
Revenue	\$	313,665	\$	218,529
Net loss	\$	(159,248)	\$	(178,124)

6. Balance Sheet Information

Allowance for Credit Losses

The activity in the accounts receivable reserves is as follows:

	As of December 31,	
	2021	2020
	(in thousands)	
Beginning balance	\$ 3,248	\$ 1,816
Additions to the reserves	196	1,719
Write-offs and adjustments	(133)	(287)
Ending balance	<u>\$ 3,311</u>	<u>\$ 3,248</u>

Property and Equipment, Net

Property and equipment, net consisted of the following:

	As of December 31,	
	2021	2020
	(in thousands)	
Computer and networking equipment	\$ 207,575	\$ 129,998
Leasehold improvements	4,631	3,817
Furniture and fixtures	1,606	1,092
Office equipment	654	659
Internal-use software	40,345	22,066
Property and equipment, gross	254,811	157,632
Accumulated depreciation and amortization	(87,850)	(61,653)
Property and equipment, net	<u>\$ 166,961</u>	<u>\$ 95,979</u>

Depreciation and amortization expense on property and equipment for the years ended December 31, 2021, 2020 and 2019 was approximately \$28.8 million, \$19.8 million, and \$16.4 million, respectively. Included in these amounts was amortization expense for capitalized internal-use software costs of approximately \$4.6 million, \$2.4 million and \$2.2 million for the years ended December 31, 2021, 2020 and 2019, respectively. As of December 31, 2021 and December 31, 2020, the unamortized balance of capitalized internal-use software costs on our Consolidated Balance Sheets was approximately \$27.9 million and \$14.2 million, respectively.

We lease certain networking equipment from various third parties, through equipment finance leases. Our networking equipment assets as of December 31, 2021 and 2020, included a total of \$67.8 million and \$36.2 million acquired under finance lease agreements, respectively. These leases are capitalized in property and equipment, and the related amortization of assets under finance leases is included in depreciation and amortization expense. The accumulated depreciation of the networking equipment assets under finance leases totaled \$14.4 million and \$6.7 million as of December 31, 2021 and 2020, respectively.

Accrued Expenses

Accrued expenses consisted of the following:

	As of December 31,	
	2021	2020
	(in thousands)	
Accrued compensation and related benefits	\$ 13,543	\$ 17,840
Accrued colocation and bandwidth costs	10,205	3,644
Sales and use tax payable	7,498	6,274
Accrued acquisition-related costs	—	2,208
Other accrued liabilities	4,866	4,368
Total accrued expenses	<u>\$ 36,112</u>	<u>\$ 34,334</u>

Other Current Liabilities

Other current liabilities consisted of the following:

	As of December 31,	
	2021	2020
	(in thousands)	
Deferred revenue	\$ 26,421	\$ 15,916
Accrued computer and networking equipment	18,081	3,126
Liability for early-exercised stock options (see Note 11)	—	255
Other current liabilities	605	380
Total other current liabilities	<u>\$ 45,107</u>	<u>\$ 19,677</u>

Accumulated Other Comprehensive Income (Loss)

The following table summarizes the changes in accumulated other comprehensive loss, which is reported as a component of stockholders' equity:

	Foreign Currency Translation	Available-for-sale investments	Accumulated Other Comprehensive Income (Loss)
	(in thousands)		
Balance at January 1, 2019	\$ (12)	\$ (24)	\$ (36)
Other comprehensive income (loss)	111	121	232
Balance at December 31, 2019	99	97	196
Other comprehensive income (loss)	(135)	(55)	(190)
Balance at December 31, 2020	(36)	42	6
Other comprehensive income (loss)	(286)	(2,347)	(2,633)
Balance at December 31, 2021	<u>\$ (322)</u>	<u>\$ (2,305)</u>	<u>\$ (2,627)</u>

7. Leases

We have operating leases for corporate offices and data centers ("Colocation leases"), and finance leases for networking equipment. Our leases have remaining lease terms of 0 to 6 years, some of which include options to extend the leases.

We also sublease a portion of our corporate office spaces. Subleases have remaining lease terms of 2.75 years. Sublease income was \$1.0 million, \$1.3 million, and \$1.2 million for the years ended December 31, 2021, 2020 and 2019, respectively.

The components of lease cost were as follows:

	As of December 31,	
	2021	2020
	(in thousands)	
Operating lease cost:		
Operating lease cost	\$ 26,716	\$ 21,76
Variable lease cost	6820	436
Total operating lease costs	\$ 33,536	\$ 26,12
Finance lease cost:		
Amortization of assets under finance lease	\$ 6,834	\$ 2,85
Interest	\$ 1,754	\$ 68
Total finance lease cost	\$ 8,588	\$ 3,54

Other information related to leases was as follows:

As of December 31,	
2021	2020
(in thousands)	

Supplemental Cash Flow Information

Cash paid for amounts included in the measurement of lease liabilities:

Payments for operating leases included in cash from operating activities	\$ 26,447	\$ 18,264
Payments for finance leases included in cash from financing activities	\$ 13,568	\$ 5,773
Payments for finance leases included in cash from operating activities	\$ 1,754	\$ 688

Assets obtained in exchange for lease obligations:

Operating leases	\$ 32,458	\$ 23,827
Finance leases	\$ 31,529	\$ 22,541

As of December 31,	
2021	2020
(in thousands)	

Weighted Average Remaining Lease term (in years)

Operating leases	4.41	4.44
Finance leases	2.23	2.51

Weighted Average Discount Rate

Operating leases	5.20 %	5.68 %
Finance leases	4.86 %	5.12 %

As of December 31, 2021, we had undiscounted commitments of \$5.9 million for operating leases that have not yet commenced, and therefore are not included in the right-of-use asset or operating lease liability. These operating leases will commence in 2022 with lease terms of 1 years to 5 years.

Future minimum lease payments under non-cancellable leases as of December 31, 2021 were as follows (in thousands):

Year ending December 31,	Operating Leases	Finance Leases
2022	\$ 19,389	\$ 22,70
2023	18,297	17,21
2024	15,014	5,85
2025	13,391	—
2026	13,174	—
Thereafter	5,813	—
Total future minimum lease payments	\$ 85,078	\$ 45,77
Less: imputed interest	(9,693)	(2,35
Total liability	\$ 75,385	\$ 43,41

8. Goodwill and Intangible Assets

Goodwill

The changes in the carrying amount of goodwill for the years ended December 31, 2021 and 2020 are as follows:

	Year ended December 31,	
	2021	2020
	(in thousands)	
Balance, beginning of period	\$ 635,590	\$ 372
Goodwill acquired	1,169	635,204
Foreign currency translation and other adjustments	46	14
Balance, end of period	\$ 636,805	\$ 635,590

The goodwill acquired from Signal Sciences is carried in U.S. dollars, while goodwill from previous acquisitions is denominated in other foreign currencies. In 2021, we recorded \$1.2 million of goodwill in connection with a small acquisition. Goodwill amounts are not amortized but tested for impairment on an annual basis. There was no impairment of goodwill for the periods ended December 31, 2021, 2020 and 2019.

Intangible Assets, net

As of December 31, 2021 and December 31, 2020, our intangible assets consisted of the following:

	As of December 31, 2021			As of December 31, 2020		
	Gross carrying value	Accumulated amortization	Net carrying value	Gross carrying value	Accumulated amortization	Net carrying value
	(in thousands)					
Intangible assets:						
Customer relationships	\$ 69,100	\$ (10,797)	\$ 58,303	\$ 69,100	\$ (2,053)	\$ 67,047
Developed technology	49,500	(12,375)	37,125	49,500	(2,475)	47,025
Trade names	3,300	(1,375)	1,925	3,300	(275)	3,025
Internet protocol addresses	4,984	(973)	4,011	2,891	(578)	2,313
Backlog	2,200	(1,375)	825	2,200	(275)	1,925
In-process research and development ("IPR&D")	368	—	368	368	—	368
Domain name	39	—	39	39	—	39
Total intangible assets	<u>\$ 129,491</u>	<u>\$ (26,895)</u>	<u>\$ 102,596</u>	<u>\$ 127,398</u>	<u>\$ (5,656)</u>	<u>\$ 121,742</u>

Amortization expense was \$21.2 million, \$5.3 million and \$0.1 million, for the years ended December 31, 2021, 2020 and 2019, respectively. We did not record any impairments during the years ended December 31, 2021, 2020 and 2019.

The estimated future amortization expense intangible assets as of December 31, 2021 is as follows:

	As of December 31, 2021
	(in thousands)
2022	\$ 20,974
2023	19,874
2024	19,040
2025	16,561
2026	9,065
Thereafter	16,714
Total	<u>\$ 102,228</u>

9. Debt Instruments

Cash Collateralized Revolving Credit Agreement ("Revolving Credit Agreement")

In November 2019, we entered into a Revolving Credit Agreement with Citibank, N.A (the "Lender") for an aggregate commitment amount of \$70.0 million with a maturity date of November 3, 2022 (the "Revolver"). The amount of borrowings available under the Revolving Credit Agreement at any time are collateralized by our cash, which is classified as restricted cash on our balance sheets. With prior written notice to the Lender, we have the right, at any time prior to the Revolver's maturity date, without premium or penalty, to terminate or reduce the Revolver arrangement. In event of such termination, the aggregate principal of the then outstanding amounts, including any accrued interest to date, shall be repaid and the restrictions on the associated collateralized cash would be released.

The interest rate associated with each advance under the Revolving Credit Agreement is equal to the sum of LIBOR for the applicable interest period plus 1.50% which is a per annum rate based on outstanding borrowings. As such, for the initial interest period ending in November 2020, the interest rate is set at 3.46%. The commitment fee is 0.20% per annum based on the average daily unused amount of the commitment amount. Interest payments on outstanding borrowings are due on the last day of each interest period and payments for the commitment fee are due at the end of each calendar quarter.

In November 2020, we terminated the Revolving Credit Agreement in accordance with its terms. In connection with the termination of the Revolving Credit Agreement, we repaid the then outstanding aggregate principal amount of \$20.3 million, as well as any accrued and unpaid interest, as of the termination date. The associated restriction on the collateralized cash of \$70.1 million was also released, accordingly.

Senior Secured Credit Facilities Agreement

On February 16, 2021, we entered into a Senior Secured Credit Facilities Agreement ("Credit Agreement") with Silicon Valley Bank for an aggregate commitment amount of \$100.0 million with a maturity date of February 16, 2024. The Credit Agreement bears interest at a rate per annum equal to the sum of LIBOR for the applicable interest period plus 1.75% - 2.00%, depending on the average daily outstanding balance of all loans and letters of credit under the Credit Agreement. Interest payments on outstanding borrowings are due on the last day of each interest period. The Credit Agreement has a commitment fee on the unused portion of the borrowing commitment, which is payable on the last day of each calendar quarter at a rate per annum of 0.20% - 0.25% depending on the average daily outstanding balance of all loans and letters of credit under the Credit Agreement. The agreement allows for an alternative interest rate to be used. In addition, our Credit Agreement contains a financial covenant that requires us to maintain a consolidated adjusted quick ratio of at least 1:25 to 1:00 tested on a quarterly basis as well as a springing revenue growth covenant for certain periods if our consolidated adjusted quick ratio falls below 1.75 to 1:00 on the last day of any fiscal quarter. The Credit Agreement requires us to comply with these affirmative and negative covenants and we were in compliance with all covenants as of December 31, 2021. We recorded \$0.6 million of debt issuance costs associated with the Credit Agreement in other assets on our condensed consolidated balance sheet. During the year ended December 31, 2021, no amount was drawn down on our Credit Agreement, and as of December 31, 2021, no amount was outstanding under the Credit Agreement.

Convertible Senior Notes

On March 5, 2021, we issued approximately \$948.8 million aggregate principal amount of our 0% convertible senior notes due 2026 (the "Notes"), including the exercise in full by the initial purchasers of their option to purchase up to an additional approximately \$123.8 million principal amount of the Notes. The Notes were issued in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act. The Notes will mature on March 15, 2026, unless earlier converted, redeemed or repurchased. The net proceeds from the issuance of the Notes were approximately \$930.0 million after deducting the initial purchasers' discounts and transaction costs.

We may not redeem the Notes prior to March 20, 2024. On or after March 20, 2024, we may redeem for cash, all or any portion of the Notes, at our option, at a redemption price equal to 100% of the principal amount of the Notes to be redeemed, plus accrued and unpaid special interest, if any, to, but excluding, the redemption date, if the last reported sale price of our common stock has been at least 130% of the conversion price for the Notes then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which we provide notice of redemption. No sinking fund is provided for the Notes.

Holders of the Notes may convert their notes at their option at any time prior to the close of business on the business day immediately preceding December 15, 2025, only under the following circumstances: (i) during any calendar quarter commencing after the calendar quarter ending on June 30, 2021 (and only during such calendar quarter), if the last reported sale price of our Class A common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price for the Notes on each applicable trading day; (ii) during the five business day period after any ten consecutive trading day period (the "Measurement Period") in which the trading price, as defined in the indenture agreement governing the Note filed with our Current Report on Form 8-K filed with the Securities and Exchange Commission on March 5, 2021, per \$1,000 principal amount of notes for each trading day of the Measurement Period was less than 98% of the product of the last reported sale price of our Class A common stock and the conversion rate on each such trading day; (iii) if we call such Notes for redemption, at any time prior to the close of business on the scheduled trading day immediately preceding the applicable redemption date, but only with respect to the Notes called (or deemed called) for redemption; or (iv) upon the occurrence of specified corporate events. On or after December 15, 2025 until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert all or any portion of their notes at any time, regardless of the foregoing circumstances.

Upon conversion, we may satisfy our conversion obligation by paying or delivering, as the case may be, cash, shares of our Class A common stock or a combination of cash and shares of our Class A common stock, at our election. The initial conversion rate is 9.7272 shares of Class A common stock per \$1,000 principal amount of Notes, equivalent to an initial conversion price of approximately \$102.80 per share of Class A common stock. The conversion rate is subject to adjustment as described in the indenture governing the Notes but will not be adjusted for any accrued and unpaid special interest. In addition, following certain corporate events that occur prior to the maturity date of the Notes or if we deliver a notice of redemption in respect of the Notes, we will, in certain circumstances, increase the conversion rate of the Notes for a holder who elects to convert its Notes, in connection with such a corporate event or convert its Notes called (or deemed called) for redemption during the related redemption period, as the case may be.

The indenture includes customary covenants and sets forth certain events of default after which the Notes may be declared immediately due and payable and sets forth certain types of bankruptcy or insolvency events of default involving us after which the Notes become automatically due and payable. If we undergo a fundamental change, as defined in the indenture agreement governing the Notes, then subject to certain conditions and except as described in the indenture governing the Notes, holders may require us to repurchase for cash all or any portion of their Notes at a fundamental change repurchase price equal to 100% of the principal amount of the Notes to be repurchased, plus accrued and unpaid special interest, if any, to, but excluding, the fundamental change repurchase date.

We evaluated the terms of our debt and concluded that the instrument does not require separation and that there were no other derivatives that required separation. As such, we have combined these features with the host contract and we account for our convertible debt as a single liability in long-term debt on our condensed consolidated balance sheet. The initial purchasers' discounts and transaction costs of \$18.6 million incurred related to the issuance of the Notes were classified as liability and represents the difference between the principal amount of the Notes and the liability component (the "debt discount"), which is amortized to interest expense using the effective interest method over the term of the Notes.

As of December 31, 2021, the conversion conditions have not been met and therefore the Notes are not yet convertible.

For the years ended December 31, 2021 and 2020, total interest expense related to our debt obligations was \$3.5 million and \$0.9 million, respectively, which excludes the interest expense related to our finance leases which is separately disclosed in Note 7—Leases. For the year ended December 31, 2019, total interest expense was \$5.2 million, of which \$4.7 million relates to the Revolving Credit Agreement, Credit Facility and Loan and Security Agreement, and \$0.5 million of which related to finance lease agreements and other costs.

The following table reflects the carrying values of the debt agreements as of December 31, 2021:

	As of December 31, 2021 (in thousands)
Liability component:	
Convertible Senior notes (effective interest rate of 0.39%)	\$ 948,750
Less: unamortized debt issuance costs	(15,545)
Less: current portion of long-term debt	—
Long-term debt, less current portion	<u>\$ 933,205</u>

10. Commitments and Contingencies

Finance and Operating Lease Commitments

Our commitments include commitments under our non-cancelable facilities and colocation operating leases (i.e. data center leases), as well as finance leases for networking equipment. Refer to Note 7—Leases for further details and disclosures around their minimum future purchase commitments as of December 31, 2021.

Purchase Commitments

As of December 31, 2021, we had long-term commitments for cost of revenue related agreements (i.e., bandwidth usage, peering and other managed services with various networks, internet service providers ("ISPs") and other third-party vendors). We also have long-term commitments for various non-cancelable software as a service ("SaaS") agreements.

Aside from our finance and operating lease commitments, including our colocation operating commitments, which have been disclosed in Note 7—Leases, the minimum future purchase commitments relating to our other cost of revenue arrangements and SaaS commitments as of December 31, 2021 were as follows:

	Cost of Revenue Commitments	SaaS Agreements (in thousands)	Total Purchase Commitments
2022	\$ 34,075	\$ 14,981	\$ 49,056
2023	5,554	14,593	20,147
2024	2,920	849	3,769
2025	160	9	169
2026	160	—	160
Thereafter	82	—	82
Total	<u>\$ 42,951</u>	<u>\$ 30,432</u>	<u>\$ 73,383</u>

Sales and Use Tax

We conduct operations in many tax jurisdictions throughout the United States. In many of these jurisdictions, non-income-based taxes, such as sales and use and telecommunications taxes are assessed on our operations. We are subject to indirect taxes, and may be subject to certain other taxes, in some of these jurisdictions. Historically, we have not billed or collected these taxes and, in accordance with U.S. GAAP, we have recorded a provision for our tax exposure in these jurisdictions when it is both probable that a liability has been incurred and the amount of the exposure can be reasonably estimated. As a result, we have recorded a liability of \$7.5 million and \$6.3 million as of December 31, 2021 and 2020, respectively. These estimates are based on several key assumptions, including the taxability of our products, the jurisdictions in which we believe we have nexus and the sourcing of revenues to those jurisdictions. In the event these jurisdictions challenge our assumptions and analysis, our actual exposure could differ materially from our current estimates.

Legal Matters

We have in the past been involved in, and may in the future be involved in, various legal proceedings and claims arising from the normal course of business, and an unfavorable resolution of any of these matters could materially affect our future results of operations, cash flows or financial position. We are also party to various disputes that management considers routine and incidental to its business. Management does not expect the results of any of these routine actions to have a material effect on our business, results of operations, financial condition, or cash flows.

On August 27, 2020, a purported securities class action lawsuit was filed in the United States District Court for the Northern District of California, captioned Marcos Betancourt v. Fastly, Inc., et al. (Case No. 4:20-cv-06024-PJH) naming as defendants us and certain of our officers. On September 15, 2020, a substantively identical complaint was filed against the same defendants in the same court, captioned Rami Habib v. Fastly, Inc., et al. (Case No. 4:20-cv-06454-JST). On September 27, 2020, the court consolidated the two cases into one putative class action, captioned In re Fastly, Inc. Securities Litigation. On

February 10, 2021, the Court appointed lead plaintiff (“Lead Plaintiff”) and lead counsel. On April 12, 2021, Lead Plaintiff filed a consolidated complaint (the “Consolidated Complaint”). The Consolidated Complaint asserts that all defendants violated Section 10(b) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) and SEC Rule 10b-5 by making materially false or misleading statements between May 6, 2020 and October 14, 2020 regarding the Company’s business and financials, including allegations that the Company failed to disclose the identity of one of its largest customers. The Lead Plaintiff also alleges that certain of the Company’s officers violated Section 20(a) of the Exchange Act. On June 11, 2021, defendants filed a motion to dismiss the Consolidated Complaint that Lead Plaintiff opposed on July 26, 2021, and defendants filed a reply on September 1, 2021. On December 21, 2021, the consolidated class action was voluntarily dismissed with prejudice.

On December 28, 2020, certain of our officers and directors were named as defendants in a shareholder derivative action filed in the United States District Court for the District of Delaware, captioned *Wei v. Bixby, et al.*, Case No. 1:20-cv-01773-MN. On February 2, 2021, a substantially similar shareholder derivative complaint was filed against the same defendants in the same court, captioned *Kristen Gorenberg v. Bixby et al.*, Case No. 1:21-cv-00136. The derivative complaints assert, inter alia, breach of fiduciary duty claims. On March 15, 2021, the Court consolidated the cases and stayed the consolidated derivative action until after resolution of our motion to dismiss in the above-referenced securities class action, and on January 3, 2022, the consolidated derivative action was voluntarily dismissed without prejudice.

Indemnification

We enter into standard indemnification agreements in the ordinary course of business. Pursuant to these agreements, we agree to indemnify, hold harmless, and reimburse the indemnified party for losses suffered or incurred by the indemnified party, generally our business partners or customers, in connection with our provision of its services. Generally, these obligations are limited to claims relating to infringement of a patent, copyright, or other intellectual property right, breach of our security or data protection obligations, or our negligence, willful misconduct, or violation of law. Subject to applicable statutes of limitation, the term of these indemnification agreements is generally for the duration of the agreement. The maximum potential amount of future payments we could be required to make under these indemnification agreements is unlimited; however, we carry insurance that covers certain third-party claims relating to our services and could limit our exposure in that respect.

We have agreed to indemnify each of our officers and directors during his or her lifetime for certain events or occurrences that happen by reason of the fact that the officer or director is, was, or has agreed to serve as an officer or director of the Company. We have director and officer insurance policies that may limit our exposure and may enable us to recover a portion of certain future amounts paid.

To date, we have not encountered material costs as a result of such indemnification obligations and have not accrued any related liabilities in our financial statements. In assessing whether to establish an accrual, we consider such factors as the degree of probability of an unfavorable outcome and the ability to make a reasonable estimate of the amount of loss.

11. Stockholders' Equity

Common Stock

Our Amended and Restated Certificate of Incorporation, as amended and restated in May 2019, authorizes the issuance of 1.0 billion shares of Class A common stock and 94.1 million shares of Class B common stock, each at a par value per share of \$0.00002. Holders of Class A common stock are entitled to one vote per share and holders of Class B common stock are entitled to 10 votes per share.

As of December 31, 2021 and 2020, 118.8 million and 103.4 million shares of Class A common stock were issued and outstanding, respectively. As of December 31, 2021 and 2020, no shares and 10.2 million shares of class B common stock were issued and outstanding, respectively.

Our Certificate includes an automatic conversion provision, which, on the date when the outstanding shares of our Class B common stock represent less than 10% of the aggregate number of shares of the then outstanding Class A common stock and Class B common stock (the “Sunset Trigger Date”), all our outstanding shares of Class B common stock will automatically convert into the same number of shares of Class A common stock under the terms of our Certificate on the trading day falling nine months after the Sunset Trigger Date (“the Conversion”). No additional Class B shares may be issued following the Conversion. On October 12, 2020, the outstanding shares of our Class B common stock represented less than 10% of the

aggregate number of shares of the then outstanding Class A common stock and Class B common stock. As a result, all our outstanding shares of Class B common stock automatically converted into the same number of shares of Class A common stock on July 12, 2021 (the "Conversion"), pursuant to the terms of our Certificate. Upon the conversion, outstanding options denominated in shares of Class B common stock issued under any of the Company's equity incentive plans remained unchanged, except that they now represent the right to receive shares of Class A common stock. In accordance with our Certificate, the shares of Class B common stock that converted to Class A common stock were retired and will not be reissued by us.

On July 12, 2021, we filed a certificate with the Secretary of State of the State of Delaware effecting the retirement of the shares of Class B common stock that were issued but no longer outstanding following the Conversion. Upon the effectiveness of the certificate, our total number of authorized shares of capital stock was reduced by the retirement of 90.0 million shares of Class B common stock.

Preferred Stock

Our Amended and Restated Certificate of Incorporation, as amended and restated in May 2019, also authorizes the issuance of 10.0 million shares of preferred stock, at a par value per share of \$0.00002, with rights and preferences, including voting rights, designated from time to time by the Board of Directors (the "Board"). As of both December 31, 2021 and 2020, no shares of preferred stock were issued and outstanding.

Equity Incentive Plans

In March 2011, our stockholders approved our 2011 Equity Incentive Plan ("2011 Plan"), which allows for the issuance of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock awards, and restricted stock unit awards ("RSUs") to employees, directors, and consultants of the Company. Options granted under our 2011 Plan were originally exercisable for shares of our Class B common stock but due to the Conversion, these awards are now exercisable for shares of our Class A common stock.

As of both December 31, 2021 and 2020, there were 23.6 million shares of Class B common stock reserved for issuance pursuant to outstanding stock options under the 2011 Plan. As of both December 31, 2021 and 2020, there were no shares of Class B common stock available for issuance for future grants under the 2011 Plan. All such shares of Class B common stock were converted to Class A common stock in July 2021 pursuant to the Conversion. As of December 31, 2021 there were no shares of Class A common stock available for issuance for future grants under the 2011 Plan.

In May 2019, in conjunction with our IPO, our Board and stockholders approved our 2019 Equity Incentive Plan (the "2019 Plan") which allows for the issuance of incentive stock options, non-statutory stock options, stock appreciation rights, RSUs, performance-based stock awards, and other forms of equity compensation, which are collectively referred to as stock awards. Additionally, the 2019 Plan provides for the grant of performance cash awards. Options are exercisable for shares of our Class A common stock. No further awards will be issued under the 2011 Plan.

In October 2020, we assumed the Signal Sciences Corp. 2014 Stock Option and Grant Plan, as amended (the "Signal Plan") and registered 251,754 shares under the Signal Plan, which were the outstanding unvested options to purchase shares of common stock of Signal Sciences. Such options became exercisable to purchase shares of our Class A common stock, subject to appropriate adjustments to the number of shares and the exercise price of each such option.

As of December 31, 2021 and 2020, an aggregate of 21.4 million shares and 19.4 million shares of Class A common stock have been reserved for issuance under the 2019 Plan, respectively. As of December 31, 2021 and 2020, there were 15.9 million and 12.8 million Class A common stock available for issuance under the 2019 Plan, respectively.

In May 2019, in conjunction with our IPO, our Board and stockholders approved the Employee Stock Purchase Plan ("ESPP"). The ESPP allows eligible employees to purchase shares of our Class A common stock through payroll deductions of up to 15% of their eligible compensation, subject to a maximum of \$25,000 per calendar year.

As of December 31, 2021 and 2020, an aggregate of 4.6 million shares and 3.5 million shares of Class A common stock have been reserved for issuance under the ESPP, respectively. As of December 31, 2021 and 2020, there were 3.7 million shares and 2.8 million shares of Class A common stock available for future issuance under the ESPP, respectively.

Stock Options

Options granted under the 2011 Plan are exercisable for Class B common stock and generally expire within 10 years from the date of grant and generally vest over four years, at the rate of 25% on the first anniversary of the date of grant and ratably on a monthly basis over the remaining 36-month period thereafter based on continued service.

Options granted under the 2019 Plan are exercisable for Class A common stock and generally expire within 10 years from the date of grant and generally vest over four years, at the rate of 25% on the first anniversary of the date of grant and ratably on a monthly basis over the remaining 36-month period thereafter based on continued service. Forfeitures are recognized as they occur.

Options granted under the Signal Sciences 2014 Equity Stock Options Plan that was assumed through the acquisition are included as part of the option rollforward activity in year ended December 31, 2020. The vesting of these options follow their original grant date terms ("Original grant date") prior to the acquisition of Signal Sciences and generally expire within 10 years from the original grant date and generally vest over four years, at the rate of 25% on the first anniversary of the date of grant and ratably on a monthly basis over the remaining 36-month period thereafter. Subsequent to the acquisition, these options are exercisable for Class A common stock and are recognized ratably over the remaining period based on continued service from the grant date.

Forfeitures are recognized as they occur.

The following table summarizes stock option activity during the years ended December 31, 2021, 2020 and 2019:

	Number of Shares (in thousands)	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding at January 1, 2019	12,210	\$ 2.96	7.8	\$ 64,590
Granted	2,516	10.87		
Exercised	(2,650)	2.45		
Cancelled/forfeited	(807)	5.10		
Outstanding at December 31, 2019	11,269	4.68	7.3	\$ 173,471
Granted	252	12.96		
Exercised	(4,360)	3.46		
Cancelled/forfeited	(198)	8.79		
Outstanding at December 31, 2020	6,963	5.63	6.7	\$ 569,094
Granted	—	—		
Exercised	(2,188)	5.77		
Cancelled/forfeited	(406)	11.10		
Outstanding at December 31, 2021	4,369	\$ 5.07	5.1	\$ 132,721
Vested and exercisable at December 31, 2021	3,579	\$ 4.10	4.7	\$ 112,280
Unvested and exercisable at December 31, 2021	134	\$ 6.70	6.9	\$ 3,834

The total pre-tax intrinsic value of options exercised during the years ended December 31, 2021, 2020, and 2019 was \$64.9 million, \$200.9 million, and \$32.6 million, respectively.

The total grant date fair value of employee options vested for the years ended December 31, 2021, 2020, 2019 was \$6.9 million, \$10.3 million, and \$6.1 million, respectively.

The weighted-average grant date fair value for options granted to employees during the years ended December 31, 2021, 2020, and 2019 was \$0.00, \$86.77, and \$5.77, respectively.

We estimate the fair value of stock options on the date of grant using the Black-Scholes option-pricing model. Each of the Black-Scholes inputs is subjective and generally requires significant judgments to determine. We estimated the fair value of

stock option awards during the years ended December 31, 2021, 2020, and 2019 on the date of the grant using the Black-Scholes option pricing model with the following weighted-average assumptions:

	Year ended December 31,		
	2021	2020	2019
Fair value of common stock	\$—	\$85.26 - \$96.43	\$8.24 - \$22.70
Expected term (in years)	—	5.38 - 9.75	6.02
Risk-free interest rate	—%	0.31% - 0.67%	1.55% - 2.5%
Expected volatility	—%	43.92% - 46.49%	39.1% - 42.7%
Dividend yield	—%	—%	—%

During the years ended December 31, 2021 and 2020, and 2019, we recognized stock-based compensation expense from stock options of approximately \$18.7 million, \$10.1 million, and \$7.9 million, respectively.

During the years ended December 31, 2021, 2020 and 2019, we modified the terms options awarded to certain employees to allow for the remaining unvested awards to be fully vested upon their change in employment status. As a result, we recorded incremental stock-based compensation expense in relation to these modifications of \$6.2 million, \$0.9 million and \$0.6 million for the years ended December 31, 2021, 2020 and 2019, respectively.

As of December 31, 2021, total unrecognized stock-based compensation cost related to outstanding unvested stock options that are expected to vest was \$9.4 million. This unrecognized stock-based compensation cost is expected to be recognized over a weighted-average period of approximately 1.5 years.

Early Exercise of Stock Options

Certain stock options granted by us are exercisable at the date of grant, with unvested shares subject to repurchase by us in the event of voluntary or involuntary termination of employment of the stockholder. Such exercises are recorded as a liability on the accompanying Consolidated Balance Sheets and reclassified into equity as the options vest. During the year ended December 31, 2021, we modified the terms of 47,882 unvested options subject to repurchase, with an exercise value of approximately \$0.2 million, to become fully vested upon change in service status. As of December 31, 2021, December 31, 2020, a total of 0 and 90,977 shares of Class B Common Stock were subject to repurchase by us at the lower of (i) the fair market value of such shares on the date of repurchase, or (ii) the original exercise price of such shares. The corresponding exercise value of approximately \$0.0 million and \$0.4 million as of December 31, 2021 and December 31, 2020, respectively, is recorded in other current liabilities and other liabilities on the accompanying Consolidated Balance Sheets.

The activity of non-vested shares as a result of early exercise of options granted to employees and non-employees, is as follows:

	Year ended December 31,		
	2021	2020	2019
	(in thousands)		
Beginning balance	91	200	245
Early exercise of options	—	—	117
Vested	(91)	(109)	(162)
Repurchased	—	—	—
Ending balance	—	91	200

RSUs

The fair value of RSUs is based on the grant date fair value and is expensed on a straight-line basis over the applicable vesting period. RSUs grant for new hires typically vest over four years, at the rate of 25% on the first anniversary of the vest commencement date and ratably on a quarterly basis over the remaining 36-month period thereafter, based on continued service. Other RSU awards typically vest quarterly over terms of 36 to 48 months. Forfeitures are recognized as they occur.

The following table summarizes RSU activity during the years ended December 31, 2021, 2020 and 2019:

	Number of Shares (in thousands)	Weighted-Average Grant Date Fair Value Per Share
Nonvested RSUs as of January 1, 2019	—	—
Granted	1,644	20.07
Vested	—	—
Cancelled/forfeited	(3)	
Nonvested RSUs as of December 31, 2019	1,641	20.07
Granted	4,398	31.22
Vested	(1,377)	22.92
Cancelled/forfeited	(142)	22.58
Nonvested RSUs as of December 31, 2020	4,520	30.01
Granted	3,584	54.92
Vested	(1,924)	35.18
Cancelled/forfeited	(895)	42.91
Nonvested RSUs as of December 31, 2021	5,285	\$ 42.80

During the years ended December 31, 2021, 2020 and 2019, we recognized stock-based compensation expense related to RSUs of \$75.5 million, \$40.5 million and \$2.2 million, respectively.

During the years ended December 31, 2021 and 2020, we modified the terms of RSUs awarded to certain employees to allow for the remaining unvested awards to be fully vested upon their change in employment status. As a result, we recorded incremental stock-based compensation expense in relation to these modifications of \$2.8 million and \$4.8 million for the year ended December 31, 2021 and 2020, respectively. During the year ended December 31, 2019, there were no RSU award modifications that resulted in incremental expense being recorded.

As of December 31, 2021, total unrecognized stock-based compensation cost related to non-vested RSUs was \$210.5 million. This unrecognized stock-based compensation cost is expected to be recognized over a weighted-average period of approximately 2.90 years.

Stock subject to revest ("Revest shares")

In conjunction with the acquisition of Signal Sciences, a restriction was placed on 896,499 shares belonging to the three co-founders of Signal Sciences to make them subject to revesting on a quarterly basis over a 2 year period. Refer to Note 5—Business Combinations for further details.

The activity of revest shares granted to these employees is as follows:

	Number of Shares (in thousands)	Weighted- Average Grant Date Fair Value Per Share
Nonvested revest shares as of December 31, 2019	—	\$ —
Restricted	896	\$ 97.84
Vested	(112)	\$ 97.84
Cancelled/forfeited	—	—
Nonvested revest shares as of December 31, 2020	784	\$ 97.84
Restricted	—	\$ —
Vested	(448)	\$ 97.84
Cancelled/forfeited	—	—
Nonvested revest shares as of December 31, 2021	336	\$ 97.84

As of December 31, 2021 and 2020, we recognized stock-based compensation expense related to revest shares of \$43.8 million and \$11.1 million, respectively.

As of December 31, 2021, total unrecognized stock-based compensation cost related to revest shares was \$32.9 million. This unrecognized stock-based compensation cost is expected to be recognized over a weighted-average period of approximately 0.70 years.

During the quarter ended September 30, 2021 and the quarter ended December 31, 2021, 186,771 and 149,417 unvested shares were sold prior to vesting, respectively. These shares were sold for an average price of \$47.54. As the holders of these shares are not entitled to the benefit of unvested shares, we requested the return of proceeds for the unvested shares as of December 31, 2021. Subsequent to December 31, 2021, we received a total of \$10.7 million from these founders attributed to the 224,124 shares that were sold prior to vesting and remain unvested as of December 31, 2021. In connection with the return of these proceeds, we modified the terms of the restricted share agreements for these founders. These proceeds will be returned to these founders in accordance with the original vesting schedule of these awards. Refer to Note -15 Subsequent Events.

Performance-Based Restricted Stock Units ("PSUs")

In March 2020, we granted a maximum total of 87,918 shares of PSUs to certain employees of the company, pursuant to our 2019 Equity Incentive Plan. The PSUs granted reflect a maximum of 200% of target performance and represent the right of the employees to be issued on a future date, one (1) share of Class A common stock for each RSU received that will vest on the applicable vesting date.

On November 2, 2020, the Compensation Committee of the Board set the performance conditions related to the previously granted PSUs ("2020 PSU awards"). The performance conditions are based on the level of achievement of certain Company and individual targets related to Fastly's operating plan for the fiscal year 2020 ("2020 operating plan"). The PSUs will vest at 50% of the target if the Company achieves 90% performance under the 2020 operating plan, 100% of the target if the Company achieves 100% performance under the 2020 operating plan and 200% of the target if the Company achieves 110% performance or greater under the 2020 operating plan. These awards will be eligible to vest linearly within those parameters. Subject to employees' continuous service with the Company through each vesting date, 25% of the number of RSUs credited to them upon certification of achievement will vest on February 15, 2021, May 15, 2021, August 15, 2021, and November 15,

2021, respectively. Based on the results of the 2020 operating plan, the actual award was reduced to 75,828 shares which represents attainment of 172%. As a result, 12,090 shares were cancelled.

In February 2021, we granted a maximum total of 70,680 shares ("2021 PSU awards") of PSUs to certain employees of the Company, pursuant to the Company's 2019 Equity Incentive Plan. The PSUs granted reflect a maximum of 150% of target performance and represent the right of the employees to be issued on a future date, one (1) share of Class A common stock for each RSU received that will vest on the applicable vesting date. The performance conditions were set and approved on the date of grant and are based on the level of achievement of certain Company and individual targets related to Fastly's operating plan for the fiscal year 2021 ("2021 operating plan"). The PSUs will vest at 50% of the target if the Company achieves 90% performance under the 2021 operating plan, 100% of the target if the Company achieves 100% performance under the 2021 operating plan and 150% of the target if the Company achieves 110% performance or greater under the 2021 operating plan. These awards will be eligible to vest linearly within those parameters. Subject to employees' continuous service with the Company through each vesting date, based on the expected extent of such targets achieved, 25% of the total RSUs on February 15, 2022 and thereafter in 12 equal quarterly installments (i.e. 6.25% of the total RSUs will vest per quarter) on May 15, August 15, November 15, and February 15. Based on the results of the 2021 operating plan, the performance conditions were not met in order to achieve the minimum award. As a result, 70,680 shares were cancelled subsequent to year-end.

The activity of PSUs granted to employees is as follows:

	Number of Shares (in thousands)	Weighted- Average Grant Date Fair Value Per Share
Nonvested PSUs as of December 31, 2019	—	\$ —
Granted	88	\$ 65.11
Vested	—	—
Cancelled/forfeited	—	—
Nonvested PSUs as of December 31, 2020	88	\$ 65.11
Granted	71	\$ 102.06
Vested	(76)	\$ 65.11
Cancelled/forfeited	(12)	\$ 65.11
Nonvested PSUs as of December 31, 2021	71	\$ 102.06

As of December 31, 2021, the performance conditions associated with the 2020 PSU awards were met and we recorded \$3.4 million in stock-based compensation expense. As of December 31, 2021, the performance conditions for the 2021 PSU awards were not met and \$0 of stock-based compensation expense was recorded.

Subsequent to year-end the 2021 awards were cancelled due to non-performance. As such there is no remaining stock-based compensation to be recognized.

ESPP

The ESPP allows eligible employees to purchase shares of our common stock through payroll deductions of up to 15% of their eligible compensation. The ESPP provides for six-month offering periods, commencing in May and November of each year. At the end of each offering period employees are able to purchase shares at 85% of the lower of the fair market value of our Class A common stock on the first trading day of the offering period or on the last day of the offering period.

We estimate the fair value of shares to be issued under the ESPP on the first day of the offering period using the Black-Scholes valuation model. The inputs to the Black-Scholes option pricing model are our stock price on the first date of the offering period, the risk-free interest rate, the estimated volatility of our stock price over the term of the offering period, the expected term of the offering period and the expected dividend rate. Stock-based compensation expense related to the ESPP is recognized on a straight-line basis over the offering period. Forfeitures are recognized as they occur.

We estimated the fair value of shares granted under the ESPP on the first date of the offering period using the Black-Scholes option pricing model with the following assumptions:

	Year ended December 31,		
	2021	2020	2019
Fair value of common stock	\$41.24 - \$44.87	\$14.09 - \$24.07	\$6.02 - \$6.92
Expected term (in years)	0.49 - 0.50	0.49-0.50	0.47-0.50
Risk-free interest rate	0.02% - 0.07%	0.10% - 0.14%	1.59% - 2.35%
Expected volatility	47% - 58%	50% - 60%	36% - 43%
Dividend yield	— %	— %	—%

During the years ended December 31, 2021, 2020 and 2019, we withheld \$8.1 million, \$9.6 million and \$5.5 million from employees, respectively, and recognized \$3.5 million, \$3.2 million, and \$2.5 million in stock-based compensation expense related to the ESPP, respectively. As of December 31, 2021, total unrecognized stock-based compensation cost related to ESPP was \$1.9 million. This unrecognized stock-based compensation cost is expected to be recognized over a weighted-average period of approximately 0.4 years.

During the years ended December 31, 2021, 2020 and 2019, an aggregate of 0.2 million and 0.3 million and 0.3 million shares of our Class A common stock was purchased under the ESPP, respectively.

Stock-based Compensation Expense

The following table summarizes the components of total stock-based compensation expense included in the accompanying Consolidated Statements of Operations:

	Year ended December 31,		
	2021	2020	2019
	(in thousands)		
Stock-based compensation expense by caption:			
Cost of revenue	\$ 7,227	\$ 3,889	\$ 1,410
Research and development	47,019	17,112	2,920
Sales and marketing	31,159	17,028	3,497
General and administrative	55,083	26,404	4,318
Total	<u>\$ 140,488</u>	<u>\$ 64,433</u>	<u>\$ 12,145</u>

For the years ended December 31, 2021, 2020 and 2019, we capitalized \$4.4 million, \$2.0 million, and \$0.4 million of stock-based compensation expense, respectively.

Common Stock Warrant Liabilities

Prior to the IPO, we issued convertible preferred stock warrants in conjunction with the issuances of debt. We recorded these warrants to purchase convertible preferred stock as a liability on the consolidated balance sheets at fair value upon issuance as the warrants were exercisable for contingently redeemable preferred stock which was classified outside of stockholders' equity (deficit). The liability associated with these warrants were subject to remeasurement at each balance sheet date, with changes in fair value recorded in the consolidated statement of operations and comprehensive loss as other expense, net.

On May 17, 2019, immediately upon closing of the IPO, our warrants to purchase convertible preferred stock were automatically converted to warrants to purchase an equal number of shares of our Class B common stock. As a result, the warrants were remeasured a final time, immediately prior to the closing of the IPO, and reclassified to additional paid-in capital within stockholders' equity. Changes in the fair value were recorded within other expense, net on the consolidated statement of

operations. As of December 31, 2019, the warrants were classified and recorded as additional paid-in capital on the condensed consolidated balance sheets.

During the year ended December 31, 2020, the remaining Class B common stock warrants related to the previously outstanding subordinated debt and loan agreements were fully exercised under the cashless exercise method pursuant to the corresponding warrant agreements. As a result of such exercises, we issued 144,635 shares of our Class B common stock. There were no remaining outstanding common stock warrant liabilities as of December 31, 2020.

12. Net Loss Per Share Attributable to Common Stockholders

We compute net loss per share using the two-class method required for multiple classes of common stock and participating securities. The rights of the holders of the Class A common stock and Class B common stock are identical, except with respect to voting and conversion. Accordingly, the Class A common stock and Class B common stock share equally in our net losses.

On July 12, 2021, the shares of Class B common stock that converted to Class A common stock were retired and will not be reissued by us.

The following table sets forth the calculation of basic and diluted net loss per share attributable to common stockholders during the periods presented. The shares issued in the IPO, the shares issued pursuant to the exercise by the underwriters of an option to purchase additional shares, and the shares of Class A and Class B common stock issued upon conversion of the outstanding shares of convertible preferred stock in the IPO are included in the table below weighted for the period outstanding:

	Year ended December 31,					
	2021		2020		2019	
	Class A ^{(1), (3)}	Class B ⁽²⁾	Class A ⁽¹⁾	Class B ⁽²⁾	Class A	Class B ⁽²⁾
	(in thousands, except per share amounts)					
Net loss attributable to common stockholders	\$ (212,120)	\$ (10,577)	\$ (78,114)	\$ (17,818)	\$ (12,084)	\$ (39,466)
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted	110,541	5,512	84,319	19,233	16,022	52,328
Net loss per share attributable to common stockholders, basic and diluted	\$ (1.92)	\$ (1.92)	\$ (0.93)	\$ (0.93)	\$ (0.75)	\$ (0.75)

- (1) Class A common stock includes the issuance of 12.9 million shares of Class A common stock issued by us in connection with our IPO and the shares issued in connection with our follow-on offering on May 26, 2020. It also includes shares issued upon the exercise of options and vesting of RSUs granted subsequent to our IPO, shares issued as part of our prior acquisitions, and converted Common B shares.
- (2) Class B common stock includes, for all periods presented, common stock issued prior to the IPO and the conversion of all of our preferred stock into an aggregate of 53.6 million shares of our Class B common stock upon closing of the IPO. Some of these shares were previously converted into shares of Class A common stock. On July 12, 2021, all shares of Class B common stock were converted into shares of Class A common stock.

Since we were in a loss position for the periods presented, basic net loss per share is the same as diluted net loss per share, as the inclusion of all potential common shares outstanding would have been anti-dilutive. The potential shares of common stock that were excluded from the computation of diluted net loss per share attributable to common stockholders for the period presented because including them would have been antidilutive are as follows:

	Number of Shares		
	Year ended December 31,		
	2021	2020	2019
	(in thousands)		
Stock options	4,369	6,963	11,269
RSUs	5,285	4,520	1,641
Early exercised stock options	—	91	200
Convertible common stock warrants	—	—	183
RSAs	336	784	—
Shares issuable pursuant to the ESPP	51	25	247
PSUs	71	88	—
Convertible senior notes (if-converted)	9,229	—	—
Total	19,341	12,471	13,540

13. Income Taxes

Loss before income taxes includes the following components:

	Year ended December 31,		
	2021	2020	2019
	(in thousands)		
United States	\$ (224,159)	\$ (86,842)	\$ (30,970)
Foreign	1,531	(20,570)	(20,088)
Loss before income taxes	<u>\$ (222,628)</u>	<u>\$ (107,412)</u>	<u>\$ (51,058)</u>

The income tax expense (benefit) consists of the following:

	Year ended December 31,		
	2021	2020	2019
	(in thousands)		
Current tax provision (benefit):			
Federal	\$ —	\$ —	\$ —
State	—	420	106
Foreign	322	1,050	386
Deferred tax provision (benefit):			
Federal	(253)	(10,631)	—
State	—	(2,319)	—
Foreign	—	—	—
Total tax expense (benefit)	<u>\$ 69</u>	<u>\$ (11,480)</u>	<u>\$ 492</u>

Reconciliation between our effective tax rate on income from continuing operations and the U.S. federal statutory rate is as follows:

	Year ended December 31,		
	2021	2020	2019
Provision at federal statutory tax rate	21 %	21 %	21 %
State taxes, net of federal tax impact	—	2	—
Change in valuation allowance	(30)	(35)	(12)
Foreign tax rate differential	—	(5)	(8)
Acquisition related expenses	—	(2)	—
Stock-based compensation	2	30	—
Research and development credits	5	—	—
Restructuring	2	—	—
Other	—	—	(2)
Effective tax rate	— %	11 %	(1)%

We recorded tax expense of \$0.1 million for the year ended December 31, 2021. Our income tax expense is primarily due to income taxes from certain foreign jurisdictions where we conduct business and state minimum income taxes in the United States.

Our deferred tax assets and liabilities were as follows:

	Year ended December 31,	
	2021	2020
	(in thousands)	
Reserves and accruals	\$ 3,149	\$ 941
Lease liability	20,415	17,481
Stock-based compensation	6,000	3,969
Net operating losses	162,260	109,281
Payroll taxes	454	—
Depreciation of property, plant and equipment	1,958	576
Research and development credits	16,636	—
Deferred revenue	7,821	—
Deferred tax assets	218,693	132,248
Deferred Revenue	—	(673)
Right-of-use Asset	(19,073)	(16,160)
Amortization of intangible assets	(21,935)	(31,188)
State Taxes	(8,969)	(4,319)
Other	(4,724)	(133)
Deferred tax liabilities	\$ (54,701)	\$ (52,473)
Valuation allowance	(163,992)	(80,028)
Net deferred tax (liabilities) assets	\$ —	\$ (253)

As of December 31, 2021 and 2020, we had net operating loss carryforwards for U.S. federal income tax purposes of approximately \$586.3 million and \$395.9 million, respectively; and for state income tax purposes of approximately \$482.5 million and \$316.5 million, respectively. The federal net operating loss carryforwards, if not utilized, will begin to expire in 2031. The state net operating loss carryforward, if not utilized, will begin to expire on various dates starting in 2022. The Company also has federal and California research and development credit carryforwards totaling \$17.8 million and \$6.6 million at December 31, 2021, respectively. The federal research and development credit carryforwards will begin to expire in 2034, unless previously utilized. The California research credits do not expire.

Based on all available evidence on a jurisdictional basis we believe that it is more likely than not that our deferred tax assets will not be utilized and have recorded a full valuation allowance against its net deferred tax assets. We assess on a periodic basis the likelihood that we will be able to recover its deferred tax assets. We consider all available evidence, both positive and negative, including historical losses, we determined that it is more likely than not that the net deferred tax assets will not be fully realizable for the years ended December 31, 2021 and 2020.

We have a valuation allowance for deferred tax assets, including net operating loss carryforwards. We expect to maintain this valuation allowance for the foreseeable future. During the year ended December 31, 2021, the valuation allowance related to the Company's deferred tax assets increased by \$79.5 million.

Utilization of the net operating loss carryforwards may be subject to a substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code of 1986, as amended (the "Code") and similar state provisions. A detailed analysis was performed through June 30, 2020 for Fastly to determine whether an ownership change under Section 382 of the Code has occurred has been performed and as a result there is no limitation on the use of net operating loss carryforwards attributable to periods before the change. A detailed analysis was performed for the period March 1, 2014 to October 1, 2020 for Signal Sciences to determine whether an ownership change under Section 382 of the Code has occurred has been performed and as a result there is a limitation on the use of net operating loss carryforwards acquired from Signal Sciences.

No provision for U.S. income and foreign withholding taxes has been made for these permanently reinvested foreign earnings because it is management's intention to permanently reinvest such undistributed earnings outside the United States.

A reconciliation of the Company's unrecognized tax benefits is as follows (in thousands):

	Year ended December 31,	
	2021	2020
Balance at beginning of year	\$ 3,186	\$ —
Increases related to prior year tax positions	3,113	2,328
Decreases related to prior year tax positions	(31)	—
Increases related to current year tax positions	1,540	858
Balance at end of year	<u>\$ 7,808</u>	<u>\$ 3,186</u>

The Company has considered the amounts and probabilities of the outcomes that can be realized upon ultimate settlement with the tax authorities and determined unrecognized tax benefits primarily related to credits should be established as noted in the summary rollforward above. The unrecognized tax benefits, if recognized and in absence of full valuation allowance, would impact the income tax provision by \$7.8 million and \$3.0 million at December 31, 2021 and 2020, respectively. It would not impact the tax provision for year ended December 31, 2019. As of December 31, 2021, the Company does not believe that it is reasonably possible that its unrecognized tax benefits would significantly change in the following 12 months. Our policy is to recognize interest and penalties associated with uncertain tax benefits as part of the income tax provision and include accrued interest and penalties with the related income tax liability on its consolidated balance sheet. To date, we have not recognized any interest and penalties in its consolidated statements of operations, nor has it accrued for or made payments for interest and penalties.

Generally, in the U.S. federal and state taxing jurisdictions, tax periods in which certain loss and credit carryovers are generated remain open for audit until such time as the limitation period ends for the year in which such losses or credits are utilized.

On March 27, 2020, the "Coronavirus Aid, Relief and Economic Security (CARES) Act" was signed into law (the "CARES Act"). The CARES Act includes provisions relating to refundable payroll tax credits, deferment of the employer portion of certain payroll taxes, net operating loss carryback periods, alternative minimum tax credit refunds, modifications to the net interest deduction limitations and technical corrections to tax depreciation methods for qualified improvement property.

Since the second quarter of 2020, we utilized the provision to defer payment of certain of our payroll taxes. Any deferred payments will be accrued for as a liability and included in our condensed consolidated balance sheet for the applicable period. As of December 31, 2021, we have accrued for \$1.7 million in payroll tax deferrals related to the CARES Act.

14. Information About Revenue and Geographic Areas

We consider operating segments to be components of the Company in which separate financial information is available and is evaluated regularly by our Chief Operating Decision Maker ("CODM") in deciding how to allocate resources and in assessing performance. Our CODM is the Chief Executive Officer ("CEO"). The CEO reviews financial information presented on a consolidated basis, accompanied by information about revenue, customer size, and industry vertical for purposes of allocating resources and evaluating financial performance.

We have determined that we operate our business as one reportable segment, and there are no segment managers who are held accountable for operations, operating results, or plans for levels or components below the consolidated unit level. Accordingly, we have determined that we have a single reporting segment and operating unit structure.

Revenue

Revenue by geography is based on the billing address of the customer. Refer to Note 3—Revenue for more information on net revenue by geographic region.

Long-Lived Assets

The following table presents long-lived assets by geographic region:

	As of December 31, 2021	As of December 31, 2020
	(in thousands)	
United States	\$ 122,375	\$ 65,054
All other countries	44,586	30,925
Total long-lived assets	<u>\$ 166,961</u>	<u>\$ 95,979</u>

15. Subsequent Events

On January 24, 2022 we entered into an agreement with the holders of restricted stock that had been sold in advance of vesting conditions to return the proceeds associated with the remaining 224,124 unvested shares as of December 31, 2021. On January 31, we received \$10.7 million from these stockholders. We have recorded a receivable of \$10.7 million as of December 31, 2021. These funds will be remitted in accordance with the original vesting schedule. The modification to the original award will be reflected subsequent to December 31, 2021. In February, one of the stockholders had a change in service as he converted from an employee to a contractor. Under the terms of his agreement, he is entitled to continued vesting of these awards as long as he provides continued service as a contractor. We have entered into a separate Consulting agreement with him. Due to the reduction in duties to be performed as a contractor, we will accelerate the remaining stock based compensation associated with his award to be recorded on his last day of service as an employee. See Note 11. Stockholders' Equity for additional information.

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

None.

Item 9A. Controls and Procedures**Evaluation of Disclosure Controls and Procedures**

The Company's management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")), as of the end of the period covered by this Annual Report on Form 10-K. Based on the evaluation of our disclosure controls and procedures as of December 31, 2021, our principal executive officer and principal financial officer concluded that, as of such date, due to the material weaknesses described below, our disclosure controls and procedures were not effective as of December 31, 2021.

Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting and for the assessment of the effectiveness of internal control over financial reporting as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act. Internal control over financial reporting is a process designed under the supervision and with the participation of our management, including our Chief Executive Officer and our Chief Financial Officer, to provide reasonable assurance regarding the reliability of financing reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America.

Under the supervision and with the participation of our Chief Executive Officer and our Chief Financial Officer and oversight of the board of directors, our management conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2021, based on the criteria set forth in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on this evaluation, due to the material weaknesses described below, management concluded that our internal control over financial reporting is disclosure not effective as of December 31, 2021.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that a reasonable possibility exists that a material misstatement of our annual or interim financial statements would not be prevented or detected on a timely basis.

Material Weaknesses

We identified a material weakness in our internal control over financial reporting for the year ended December 31, 2020 which remains unremediated for the year ended December 31, 2021. The material weakness related to a lack of sufficient, qualified finance and accounting resources commensurate with the complexity of the Company's operations and financial reporting requirements. This control deficiency, aggregated with the other deficiencies, constitutes a material weakness and impacted our overall control environment.

We also identified a material weakness in our internal control over financial reporting during the quarter ended September 30, 2021 related to our accounting for internal-use software costs. The material weakness resulted from a lack of timely and complete identification of internal-use software costs for capitalization, for which we recorded out-of-period adjustments during the year ended December 31, 2021.

We also identified a material weakness in our internal control over financial reporting during the year ended December 31, 2021 related to the system implementation of our stock plan administration system. Specifically, certain of our systems controls were not designed to prevent the sale of unvested shares, which allowed certain holders of restricted stock to sell shares that had not yet vested.

The above material weaknesses resulted in misstatements to our financial statements, or could result in misstatements to our financial statements in the future, if not remediated. Notwithstanding the material weaknesses, management has concluded that the financial statements included elsewhere in this Annual Report present fairly, in all material respects, our financial position, results of operations and cash flows in the conformity with U.S. GAAP.

The effectiveness of our internal control over financial reporting as of December 31, 2021 has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report which is included in Part II, Item 8—Financial Statements and Supplementary Data, of this Annual Report on Form 10-K.

Remediation Efforts with Respect to the Material Weaknesses

The process of implementing an effective system of internal control over financial reporting is a continuous effort that requires us to anticipate and react to changes in our business and the economic and regulatory environments and to expend significant resources to maintain a financial reporting system that is adequate to satisfy our reporting obligations.

We continue to evaluate and implement measures designed to ensure that control deficiencies contributing to the material weaknesses are remediated, such that these controls are designed, implemented, and operating effectively. The Audit Committee is fully engaged and supportive of management's efforts to remediate the material weaknesses. These remediation actions are ongoing and include or are expected to include:

Actions related to the remediation of all material weaknesses in internal control over financial reporting, including the material weakness related to a lack of sufficient, qualified finance and accounting resources commensurate with the complexity of the Company's operations and financial reporting requirements:

- We appointed our new CFO in the third quarter of 2021, and we have recruited and hired several senior leaders in the finance and accounting teams since then. We will continue to hire, retain and oversee qualified finance and accounting resources at all levels to support the Company, including external advisors when appropriate.
- We are enhancing quarterly reporting of the remediation measures and progress to the Audit Committee of the Board of Directors.

Actions specific to the remediation of the material weakness in internal control over financial reporting during the quarter ended September 30, 2021 related to our accounting for internal-use software costs:

- We have and will continue to enhance our process and expand our review controls to ensure complete and timely identification of internal use software costs subject to capitalization.
- We have and will continue to implement additional training of finance, accounting and other Company personnel involved in this process.
- We will continue to work with qualified external advisors to support these efforts.

Actions specific to remediate the material weakness in internal control over financial reporting during the year ended December 31, 2021 related to the design of controls for system implementations associated with a migration of our stock plan administration system:

- Updating the design and review of controls for system implementations.
- We have and will continue to leverage internal expertise in systems implementation for the design of controls for systems implementations.
- We will continue to work with qualified external advisors to support these efforts.

As we continue to evaluate and work to improve our internal control over financial reporting, we may decide to take additional measures to address control deficiencies or modify the remediation plans described above. We believe that these actions will remediate the material weaknesses, however the weaknesses will not be considered remediated until the applicable controls operate for a sufficient period of time and management has concluded, through testing, that these controls are operating effectively. Management believes the foregoing plans will effectively remediate the deficiencies constituting the material weaknesses. However, there is no assurance as to when such remediation will be completed. As the remediation plans are or continue to be implemented, management may take additional measures or modify the plan elements described above.

Changes in Internal Control over Financial Reporting

Except for the identification of the material weaknesses and remediation activities described above, there were no changes during the quarter ended December 31, 2021 in our internal control over financial reporting that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all errors and all fraud. 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. 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, if any, within the Company have been detected. 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 the 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.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Fastly, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Fastly, Inc. and subsidiaries (the “Company”) as of December 31, 2021, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, because of the effect of the material weaknesses identified below on the achievement of the objectives of the control criteria, the Company has not maintained effective internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements and the related notes (collectively referred to as the “financial statements”) as of and for the year ended December 31, 2021, of the Company and our report dated March 1, 2022, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying *Management’s Annual Report on Internal Control Over Financial Reporting*. Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Material Weaknesses

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company’s annual or interim financial statements will not be prevented or detected on a timely basis. The following material weaknesses have been identified and included in the accompanying *Management’s Annual Report on Internal Control Over Financial Reporting*:

Sufficiency of Finance and Accounting Resources - There is a lack of sufficient qualified finance and accounting resources commensurate with the complexity of the Company's operations and financial reporting requirements.

Accounting for Internal-Use Software Costs – Certain of the Company's controls were not designed to identify on a timely basis qualified costs for capitalization as internal-use software, which resulted in the Company recording out-of-period adjustments during the fiscal year ended December 31, 2021.

System Implementation of Stock Plan Administration System – Certain of the Company's systems controls were not designed to prevent the sale of unvested shares, which allowed certain holders of restricted stock to sell shares that had not yet vested.

These material weaknesses were considered in determining the nature, timing, and extent of audit tests applied in our audit of the financial statements as of and for the year ended December 31, 2021, of the Company, and this report does not affect our report on such financial statements.

/s/ Deloitte & Touche LLP
San Francisco, California
March 1, 2022

Item 9B. Other Information

Not applicable.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III

Item 10. Directors, Executive Officers, and Corporate Governance

Information required by this Item is incorporated by reference to the sections of our proxy statement to be filed with the SEC no later than 120 days after December 31, 2021 in connection with our 2022 Annual Meeting of Stockholders (the "Proxy Statement").

We have adopted a Code of Business Conduct and Ethics that applies to our officers, directors and employees, which is available on our website at www.fastly.com. The Code of Business Conduct and Ethics is intended to qualify as a "code of ethics" within the meaning of Section 406 of the Sarbanes-Oxley Act of 2002 and Item 406 of Regulation S-K. In addition, we intend to promptly disclose (1) the nature of any amendment to our Code of Business Conduct and Ethics that applies to our principal executive officer, principal financial officer, principal accounting officer or controller or persons performing similar functions and (2) the nature of any waiver, including an implicit waiver, from a provision of our code of ethics that is granted to one of these specified officers, the name of such person who is granted the waiver and the date of the waiver on our website in the future.

Item 11. Executive Compensation

Information required by this Item is incorporated by reference to our Proxy Statement.

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

Information required by this Item is incorporated by reference to our Proxy Statement.

Item 13. Certain Relationships and Related Transactions and Director Independence

Information required by this Item is incorporated by reference to our Proxy Statement.

Item 14. Principal Accountant Fees and Services

Information required by this Item is incorporated by reference to our Proxy Statement.

PART IV

Item 15. Exhibits

(a)(1) Financial statements

The information concerning Fastly's financial statements and the Report of Independent Registered Public Accounting Firm required by this Item 15(a) (1) is incorporated by reference herein to the section of this Annual Report on Form 10-K in Part II, Item 8, "Financial Statements and Supplementary Data."

(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 those financial statements.

(a)(3) Exhibits

We have filed, or incorporated into this Annual Report on Form 10-K by reference, the exhibits listed on the accompanying Exhibit Index immediately preceding the signature page of this Annual Report on Form 10-K.

Exhibit Number	Exhibit Description	Form	File No.	Exhibit	Filing Date	Filed Herewith
2.1	Agreement and Plan of Reorganization, dated August 26, 2020.	8-K	001-38897	2.1	October 12, 2020	
3.1	Amended and Restated Certificate of Incorporation.	8-K	001-38897	3.1	May 21, 2019	
3.2	Certificate of Amendment of Amended and Restated Certificate of Incorporation.	8-K	001-38897	3.1	June 10, 2020	
3.3	Certificate of Retirement.	8-K	001-38897	3.1	July 13, 2021	
3.4	Amended and Restated Bylaws.	10-Q	001-38897	3.3	August 7, 2020	
4.1	Form of Class A common stock certificate of Fastly, Inc.	S-1/A	333-230953	4.1	May 6, 2019	
4.2	Reference is made to Exhibits 3.1 through 3.3.					
4.3	Indenture, dated as of March 5, 2021, by and between Fastly, Inc. and U.S. Bank National Association, as Trustee.	8-K	001-38897	4.1	March 5, 2021	
4.4	Form of Note, representing Fastly, Inc.'s 0% Convertible Senior Notes due 2026 (included as Exhibit A to the Indenture filed as Exhibit 4.3).	8-K	001-38897	4.2	March 5, 2021	
4.5	Description of Securities.					X
10.1+	2011 Equity Incentive Plan, as amended to date.	S-1	333-230953	10.2	April 19, 2019	
10.2+	Forms of Option Agreement, Notice of Stock Option Grant, and Exercise Notice under 2011 Equity Incentive Plan.	S-1	333-230953	10.3	April 19, 2019	
10.3+	2019 Equity Incentive Plan.	S-1/A	333-230953	10.4	May 6, 2019	
10.4+	Forms of Option Agreement, Notice of Stock Option Grant, and Exercise Notice under 2019 Equity Incentive Plan.	S-1/A	333-230953	10.5	May 6, 2019	
10.5+	Form of Restricted Stock Unit Award Agreement under 2019 Equity Incentive Plan.	10-Q	001-38897	10.3	August 9, 2019	
10.6+	2019 Employee Stock Purchase Plan.	S-1/A	333-230953	10.7	May 6, 2019	
10.7	Form of Indemnification Agreement by and between Fastly, Inc. and each of its directors and executive officers.	S-1/A	333-230953	10.8	May 6, 2019	
10.8+	Cash Incentive Bonus Plan.	S-1/A	333-230953	10.9	May 6, 2019	

Exhibit Number	Exhibit Description	Form	File No.	Exhibit	Filing Date	Filed Herewith
10.9+	Employment Terms by and between Fastly, Inc. and Artur Bergman, dated May 3, 2019.	S-1/A	333-230953	10.10	May 6, 2019	
10.10+	Transition and Separation Agreement by and between Fastly, Inc. and Adriel Lares, dated May 4, 2021.	8-K	001-38897	10.1	May 5, 2021	
10.11+	Offer Letter Agreement, by and between Fastly, Inc. and Paul Luongo, dated November 27, 2013.	S-1	333-230953	10.13	April 19, 2019	
10.12	Office Lease Agreement, by and between Fastly, Inc. and CLPF-475 Brannan Street, L.P., dated August 22, 2014.	S-1	333-230953	10.17	April 19, 2019	
10.13	First Amendment to Lease Agreement, by and between Fastly, Inc. and CLPF-475 Brannan Street, L.P., dated May 27, 2015.	S-1	333-230953	10.18	April 19, 2019	
10.14	Second Amendment to Lease Agreement, by and between Fastly, Inc. and CLPF-475 Brannan Street, L.P., dated March 11, 2019.	S-1	333-230953	10.32	April 19, 2019	
10.15+	Executive Change in Control and Severance Benefit Plan.	S-1/A	333-230953	10.31	May 6, 2019	
10.16+	Non-Employee Director Compensation Policy, as amended.	8-K	001-38897	99.1	November 3, 2021	
10.17	Stock Ownership Guidelines.	S-1/A	333-230953	10.33	May 6, 2019	
10.18+	Employment Agreement, by and between Fastly International (Holdings) Ltd. and Joshua Bixby dated February 19, 2020.	8-K	001-38897	10.1	February 20, 2020	
10.19+	Equity Offer Letter, by and between Fastly, Inc. and Joshua Bixby dated February 19, 2020.	8-K	001-38897	10.2	February 20, 2020	
10.20+	Modification to Offer Letter Agreement, by and between Fastly, Inc. and Artur Bergman dated February 19, 2020.	8-K	001-38897	10.3	February 20, 2020	
10.21+	Signal Sciences Corp. 2014 Stock Option and Grant Plan.	S-8	333-249504	99.1	October 10, 2020	
10.22	Senior Secured Credit Facilities Credit Agreement, among Fastly, Inc., the several lenders from time to time party thereto, and Silicon Valley Bank, dated as of February 16, 2021.	10-K	001-38897	10.23	March 1, 2021	
10.23+	Offer Letter Agreement, by and between Fastly, Inc. and Brett Shirk, dated February 9, 2021.					X
10.24+	Offer Letter by and between Fastly, Inc. and Ronald W. Kisling, dated June 22, 2021.	8-K	001-38897	10.1	June 29, 2021	
21.1	Subsidiaries of the Registrant.	10-K	001-38897	21.1	March 1, 2021	
23.1	Consent of Independent Registered Public Accounting Firm.					X
24.1	Power of Attorney (contained on the signature page of this report).					X
31.1	Certification of the Chief Executive Officer pursuant to Exchange Act Rule 13a-14 as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of the Chief Financial Officer pursuant to Exchange Act Rule 13a-14 as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1*	Certification of the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					

Exhibit Number	Exhibit Description	Form	File No.	Exhibit	Filing Date	Filed Herewith
32.2*	<u>Certification of the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>					
101.INS	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.					X
101.SCH	Inline XBRL Taxonomy Schema Linkbase Document.					X
101.CAL	Inline XBRL Taxonomy Calculation Linkbase Document.					X
101.DEF	Inline XBRL Taxonomy Definition Linkbase Document.					X
101.LAB	Inline XBRL Taxonomy Labels Linkbase Document.					X
101.PRE	Inline XBRL Taxonomy Presentation Linkbase Document.					X
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101).					

+ Indicates management contract or compensatory plan.

* The certifications furnished in Exhibit 32.1 and 32.2 hereto are deemed to be furnished with this Annual Report on Form 10-K and will not be deemed to be “filed” for purposes of Section 18 of the Exchange Act, except to the extent that the Registrant specifically incorporates it by reference.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, Fastly, Inc. has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized.

FASTLY, INC.

Date: March 1, 2022

By: /s/ Joshua Bixby

Joshua Bixby
Chief Executive Officer (Principal Executive Officer)

Date: March 1, 2022

By: /s/ Ronald W. Kisling

Ronald W. Kisling
Chief Financial Officer (Principal Financial and Accounting Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Joshua Bixby and Ronald W. Kisling, and each of them, as his or her true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such individual in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or the individual's substitute, may lawfully do or cause to be done by virtue hereof.

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

Signature	Title	Date
<u>/s/ Joshua Bixby</u> Joshua Bixby	Chief Executive Officer and Director (Principal Executive Officer)	March 1, 2022
<u>/s/ Ronald W. Kisling</u> Ronald W. Kisling	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 1, 2022
<u>/s/ Artur Bergman</u> Artur Bergman	Chief Architect, Executive Chairperson and Chairperson of the Board of Directors	March 1, 2022
<u>/s/ Aida Álvarez</u> Aida Álvarez	Director	March 1, 2022
<u>/s/ Richard Daniels</u> Richard Daniels	Director	March 1, 2022
<u>/s/ David Hornik</u> David Hornik	Director	March 1, 2022
<u>/s/ Paula Loop</u> Paula Loop	Director	March 1, 2022
<u>/s/ Charles Meyers</u> Charles Meyers	Director	March 1, 2022
<u>/s/ Christopher B. Paisley</u> Christopher B. Paisley	Director	March 1, 2022
<u>/s/ Vanessa Smith</u> Vanessa Smith	Director	March 1, 2022

**DESCRIPTION OF THE REGISTRANT'S SECURITIES
REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES
EXCHANGE ACT OF 1934**

Fastly, Inc. (“we,” “our,” “us,” or the “Company”) has one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the “Securities Act”): our Class A common stock. The following summary of the terms of our common stock is based upon our amended and restated certificate of incorporation as amended by the Certificate of Amendment to the amended and restated certificate of incorporation (collectively, the “Certificate of Incorporation”) and our amended and restated bylaws. This summary does not purport to be complete and is subject to, and is qualified in its entirety by express reference to, the applicable provisions of our Certificate of Incorporation and our amended and restated bylaws, which are filed as exhibits to our Annual Report on Form 10-K and are incorporated by reference herein. We encourage you to read our Certificate of Incorporation, our amended and restated bylaws and the applicable provisions of the Delaware General Corporation Law for more information.

General

Our Certificate of Incorporation provides for two classes of common stock: Class A common stock and Class B common stock. In addition, our Certificate of Incorporation authorizes shares of undesignated preferred stock, the rights, preferences, and privileges of which may be designated from time to time by our board of directors.

Authorized Capital Shares

On July 12, 2021, all shares of our then-outstanding Class B common stock were automatically converted into the same number of shares of Class A common stock, pursuant to the terms of our Certificate of Incorporation. No additional shares of Class B common stock may be issued following such conversion. On July 12, 2021, we filed a certificate of retirement with the Secretary of State of the State of Delaware effecting the retirement of the shares of Class B common stock that were issued but no longer outstanding following the conversion. The filing of the certificate of retirement had the additional effect of reducing our authorized Class B common stock by the number of retired shares of Class B common stock. Our authorized capital stock therefore consists of 1,000,000,000 shares of our Class A common stock, \$0.00002 par value per share, 4,191,275 shares of our Class B common stock, \$0.00002 par value per share, and 10,000,000 shares of undesignated preferred stock \$0.00002 par value per share.

Class A Common Stock

Dividend and Distribution Rights

Subject to the preferences that may apply to any shares of preferred stock at the time outstanding having prior rights as to dividends, the holders of Class A common stock are entitled to receive, when, as and if declared by the board of directors, out of any of our assets legally available therefor, such dividends as may be declared from time to time by the board of directors.

Voting Rights

The Class A common stock is entitled to one vote per share on all matters (including the election of directors) submitted to a vote of stockholders. We have not provided for cumulative voting for the election of directors in our Certificate of Incorporation.

No Preemptive or Similar Rights

Our common stock is not entitled to preemptive rights and is not subject to conversion, redemption, or sinking fund provisions. The rights, preferences, and privileges of the holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of any series of our preferred stock that we may designate and issue in the future.

Liquidation Rights

In the event of our liquidation, dissolution, or winding-up, upon the completion of the distributions required with respect to any series of preferred stock that may then be outstanding, or remaining assets legally available for distribution to stockholders shall be distributed on a pro rata basis to the holders of Class A common stock.

Fully Paid and Non-Assessable

All of the outstanding shares of our common stock are fully paid and non-assessable.

Anti-Takeover Provisions

Anti-Takeover Statute

We are subject to Section 203 of the DGCL, which generally prohibits a publicly held Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding, but not the outstanding voting stock owned by the interested stockholder, those shares owned (1) by persons who are directors and also officers and (2) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 $\frac{2}{3}$ % of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines a “business combination” to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge, or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges, or other financial benefits by or through the corporation.

In general, Section 203 defines an “interested stockholder” as an entity or person who, together with the person’s affiliates and associates, beneficially owns, or within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

Anti-Takeover Effects of Certain Provisions of our Certificate of Incorporation and Bylaws

Our Certificate of Incorporation provides for our board of directors to be divided into three classes with staggered three-year terms. Only one class of directors may be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. Because our stockholders do not have cumulative voting rights, stockholders holding a majority of the shares of our common stock outstanding are able to elect all of our directors. Our Certificate of Incorporation and amended and restated bylaws also provide that directors may be removed by the stockholders only for cause upon the vote of 66 $\frac{2}{3}$ % or more of our outstanding common stock. Furthermore, the authorized number of directors may be changed only by resolution of our board of directors, and vacancies and newly created directorships on our board of directors may, except as otherwise required by law or determined by our board, only be filled by a majority vote of the directors then serving on the board, even though less than a quorum.

Our Certificate of Incorporation and amended and restated bylaws also provide that all stockholder actions must be effected at a duly called meeting of stockholders and eliminate the right of stockholders to act by written consent without a meeting. Our amended and restated bylaws also provide that only our chairman of the board, chief executive officer or our board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors may call a special meeting of stockholders.

Our amended and restated bylaws also provide that stockholders seeking to present proposals before our annual meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must

provide timely advance notice in writing, and, subject to applicable law, will specify requirements as to the form and content of a stockholder's notice.

Our Certificate of Incorporation and amended and restated bylaws provide that the stockholders cannot amend many of the provisions described above except by a vote of 66 2/3% or more of our outstanding common stock.

The combination of these provisions make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Since our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to reduce our vulnerability to hostile takeovers and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and may have the effect of delaying changes in our control or management. As a consequence, these provisions may also inhibit fluctuations in the market price of our stock that could result from actual or rumored takeover attempts. We believe that the benefits of these provisions, including increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us, outweigh the disadvantages of discouraging takeover proposals, because negotiation of takeover proposals could result in an improvement of their terms.

Choice of Forum

Our Certificate of Incorporation provides that the Court of Chancery of the State of Delaware will be the exclusive forum for the following types of actions or proceedings under Delaware statutory or common law: any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty owed by any of our directors, officers, employees, or stockholders to us or our stockholders; any action asserting a claim against us arising pursuant to the DGCL, our Certificate of Incorporation or our bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. The provisions do not apply to suits brought to enforce a duty or liability created by the Exchange Act.

Our Certificate of Incorporation provides that the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act, subject to and contingent upon a final adjudication in the State of Delaware of the enforceability of such exclusive forum provision.

Transfer Agent and Registrar

The transfer agent and registrar for our Class A common stock is American Stock Transfer & Trust Company. The transfer agent's address is 6201 15th Avenue, Brooklyn, New York 11219.

Listing

Our common stock is listed on the New York Stock Exchange under the symbol "FSLY."



February 9, 2021

Brett Shirk

Re: Employment Terms

Dear Brett:

On behalf of Fastly, Inc. ("**Fastly**" or "the "**Company**"), we are pleased to offer you the position of EVP, Chief Revenue Officer under the terms set forth in this letter.

Location. You will principally work remotely from .

Duties and Reporting Relationship. As EVP, Chief Revenue Officer, you will report to Joshua Bixby. You may be asked to perform other duties as our business needs dictate.

Base Salary. Your initial base salary will be at an annual rate of \$450,000 subject to applicable deductions and withholdings and paid on the Company's normal payroll schedule. As a full-time, salaried, exempt employee you will be expected to work the Company's normal business hours and additional hours as required by your job duties, and you will not be eligible for overtime pay.

Commissions. In your position with the Company, you will also be eligible to earn commissions under the Global Sales Compensation Plan. If you meet 100% of the targets, your annual overall on-target-earnings (base salary plus commissions) will be \$900,000.

Standard Benefits and Paid Time Off. You will be eligible to participate in all benefits which Fastly makes generally available to its regular full-time employees in accordance with the terms and conditions of the benefit plans and Company policies, including health insurance, dental insurance, paid time off and holidays. The Company reserves the right to modify or cancel any or all of its benefit programs at any time. Further details about Fastly's benefit plans are available for your review in the benefit Summary Plan Documents.

Equity Compensation. Subject to the approval of the Company's Board of Directors or its designated Committee (the "**Board**"), you will be granted an award of restricted stock units covering 100,000 shares of the Company's Class A common stock (the "**RSU Grant**"). The RSU Grant will vest as follows: 12.5% of the total RSU grant will vest after your first six months, 60% of the total RSU grant will vest quarterly thereafter for two years, and the remaining 27.5% of the total RSU grant will vest quarterly thereafter for one year, in each case subject to your continued service with the Company. The RSU Grant will be subject to the provisions of the Company's 2019 Equity Incentive Plan (the "**Plan**") and related award agreement. In case of any conflict between the terms of this offer letter agreement and the Plan or any award agreement thereunder, the terms of the Plan and award agreement will control.

Severance Plan. While the Company may change your position, reporting relationship, duties, compensation and work location from time to time at its discretion, you will be entitled to participate in the Company's Executive Change in Control and Severance Benefit Plan, a copy of which will be provided under separate cover.

Brett Shirk Page 1

Expenses. During your employment, your reasonable, documented business expenses will be reimbursed by the Company in accordance with its standard policies and practices. You will be entitled to travel business class for all air travel.

Confidentiality, Arbitration and Policies. As a condition of your employment, you will be required to sign and comply with the Company's standard Employee Confidential Information and Inventions Assignment Agreement (attached as **Exhibit A**). You are also required to acknowledge that you have reviewed and understand your rights under the Company's Arbitration Agreement (attached as **Exhibit B**). In addition, you will be required to abide by all applicable Fastly policies and procedures as may be in effect from time to time, including but not limited to its employment policies, and from time to time you will be required to acknowledge in writing that you have reviewed and will comply with the Company's policies.

At-Will Employment Relationship. Your employment is not for any fixed period of time, and it is terminable at-will. Thus, either you or the Company may terminate your employment relationship at any time, with or without cause, and with or without advance notice. Although not required, the Company requests that you provide at least two weeks' advance written notice of your resignation, to permit you and the Company to arrange for a smooth transition of your workload and attend to other matters relating to your departure.

Conditions. This offer of employment and your employment with the Company is contingent upon satisfactory results of a background check to be performed pursuant to your written authorization. You agree to assist as needed, and to complete any documentation at the Company's request, to meet these conditions.

Miscellaneous. This letter, together with **Exhibit A** and **Exhibit B**, constitutes the complete and exclusive statement of your agreement with the Company regarding the terms of your employment with Fastly. It supersedes any other agreements or promises made to you by any party, whether oral or written. The terms of this offer letter agreement cannot be amended or modified (except with respect to those changes expressly reserved to the Company's discretion in this letter), without a written modification signed by you and a duly authorized officer of the Company. The terms of this offer letter agreement are governed by the laws of the State of California without regard to conflicts of law principles. With respect to the enforcement of this offer letter agreement, no waiver of any right hereunder shall be effective unless it is in writing. For purposes of construction of this offer letter agreement, any ambiguity shall not be construed against either party as the drafter. This offer letter agreement may be executed in more than one counterpart, and signatures transmitted via facsimile or PDF shall be deemed equivalent to originals. As required by law, this offer is subject to satisfactory proof of your identity and right to work in the United States.

[Remainder of page intentionally left blank.]

We are very pleased that you will be joining Fastly. Please sign and date this letter and the enclosed exhibits and return them to us by the close of business on February 11, 2021 if you wish to accept employment under the terms described above. If we do not receive the fully signed letter and the signed **Exhibit A** and **Exhibit B** from you by that date, the Company's offer in this letter will expire. In addition, this offer will expire if you do not provide the requested authorization to perform a background check within 72 hours of your acceptance of this offer. If you accept our offer, we would like you to start on February 22, 2021.

Sincerely,

Fastly, Inc.

/s/ Joshua Bixby

Joshua Bixby, CEO

Exhibit A – Employee Confidential Information and Inventions Assignment Agreement

Exhibit B – Arbitration Agreement

Understood and Accepted: Date:

/s/ Brett Shirk 2/10/21

Exhibit A

FASTLY, INC

Employee Confidential Information and Inventions Assignment Agreement

Exhibit B
FASTLY, INC.
Arbitration Agreement

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-249495 and 333-242370 on Form S-3ASR and Registration Statement Nos. 333-231558, 333-237655, 333-249504 and 333-253745 on Form S-8 of our reports dated March 1, 2022, relating to the financial statements of Fastly, Inc. and the effectiveness of Fastly, Inc.'s internal control over financial reporting appearing in this Annual Report on Form 10-K for the year ended December 31, 2021.

/s/ Deloitte & Touche LLP

San Francisco, California
March 1, 2022

Exhibit 31.1

**CERTIFICATION 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**

I, Joshua Bixby, certify that:

1. I have reviewed this Annual Report on Form 10-K of Fastly, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 1, 2022

By: /s/ Joshua Bixby
Joshua Bixby
Chief Executive Officer

Exhibit 31.2

**CERTIFICATION 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**

I, Ronald W. Kisling, certify that:

1. I have reviewed this Annual Report on Form 10-K of Fastly, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 1, 2022

By: /s/ Ronald W. Kisling

Ronald W. Kisling
Chief Financial Officer

Exhibit 32.1

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

In connection with the Annual Report of Fastly, Inc. (the "Company") on Form 10-K for the year ended December 31, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge:

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

Date: March 1, 2022

By: /s/ Joshua Bixby
Joshua Bixby
Chief Executive Officer

Exhibit 32.2

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

In connection with the Annual Report of Fastly, Inc. (the “Company”) on Form 10-K for the year ended December 31, 2021 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge:

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

Date: March 1, 2022

By: /s/ Ronald W. Kisling

Ronald W. Kisling
Chief Financial Officer