

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2022

OR

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

For the transition period from

Commission file number 001-40787

ForgeRock, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

201 Mission Street Suite 2900 San Francisco CA

(Address of Principal Executive Offices)

33-1223363

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

94105

(Zip Code)

(415) 599-1100

Registrant's telephone number, including area code

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A common stock	FORG	New York Stock Exchange

Securities registered pursuant to section 12(g) of the Act:

None

(Title of class)

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

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

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes ☐ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post 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. ☐

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

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

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

As of June 30, 2022, the aggregate market value of the common stock held by non-affiliates of the registrant, based on the closing sale price of the Company's Class A common stock as reported by the New York Stock Exchange on such date, was \$,222,812,172. For purposes of calculating the aggregate market value of shares held by non-affiliates, we have assumed that all outstanding shares are held by non-affiliates, except for shares owned by each of our executive officers, directors and 5% or greater stockholders. In the case of 5% or greater stockholders, we have not deemed such stockholders to be affiliates unless there are facts and circumstances indicated that such stockholders exercise control over our company. The determination of executive officer or affiliate status is not conclusive determination for other purposes.

The registrant had outstanding 50,398,380 shares of Class A common stock and 36,738,396 shares of Class B common stock as of February 22, 2023.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement relating to its 2023 annual meeting of stockholders are incorporated by reference into Part III of this Annual Report on Form 10-K where indicated. Such proxy statement will be filed with the Securities and Exchange Commission within 120 days of the Registrant's fiscal year ended December 31, 2022.

TABLE OF CONTENTS

		<u>Page</u>
Part I		
Item 1.	Business	1
Item 1A.	Risk Factors	16
Item 1B.	Unresolved Staff Comments	58
Item 2.	Properties	58
Item 3.	Legal Proceedings	58
Item 4.	Mine Safety Disclosures	58
Part II		
Item 5.	Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	59
Item 6.	Reserved	60
Item 7.	Management's Discussion and Analysis of Financial Condition and Results of Operations	61
Item 7A.	Quantitative and Qualitative Disclosures About Market Risk	82
Item 8.	Financial Statements and Supplementary Data	83
Item 9.	Changes in and Disagreements with Accountants on Accounting and Financial Disclosures	121
Item 9A.	Controls and Procedures	121
Item 9B.	Other Information	122
Item 9C.	Disclosure Regarding Foreign Jurisdictions that Prevent Inspection	122
Part III		
Item 10.	Directors, Executive Officers and Corporate Governance	123
Item 11.	Executive Compensation	123
Item 12.	Security Ownership of Certain Beneficial Owner and Management and Related Stockholder Matters	123
Item 13.	Certain Relationships and Related Transactions, and Director Independence	123
Item 14.	Principal Accounting Fees and Services	123
Part IV		
Item 15.	Exhibits, Financial Statement Schedules	124
Item 16.	Form 10-K Summary	126
Signatures		127

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, and Section 21E of the Securities Exchange Act of 1934, as amended, which statements involve substantial risk and uncertainties. Forward-looking statements generally relate to future events or ForgeRock's future financial or operating performance. In some cases, you can identify forward-looking statements because they contain words such as "may," "will," "should," "expects," "plans," "anticipates," "going to," "could," "intends," "target," "projects," "contemplates," "believes," "estimates," "predicts," "potential," or "continue" or the negative of these words or other similar terms or expressions that concern ForgeRock's expectations, strategy, priorities, plans, or intentions. Forward-looking statements contained in this Annual Report on Form 10-K include, but are not limited to, statements about:

- our proposed acquisition by entities affiliated with Thoma Bravo, L.P. ("Thoma Bravo");
- our expectations regarding the timing and completion of the proposed acquisition by entities affiliated with Thoma Bravo;
- our future financial performance, including our expectations regarding our revenue, cost of revenue, operating expenses, our ability to determine reserves and our ability to achieve and maintain future profitability;
- our future operational performance, including our expectations regarding ARR, dollar-based net retention rate, and the number of large customers;
- the sufficiency of our cash, cash equivalents and investments to meet our liquidity needs;
- the demand for our products and services or for security solutions in general, including our recently introduced SaaS offering, the ForgeRock Identity Cloud;
- our ability to attract and retain customers and partners;
- our ability to cross-sell to our existing customers;
- our ability to develop new products and features and bring them to market in a timely manner and make enhancements to our offerings;
- our ability to compete with existing and new competitors in existing and new markets and offerings;
- our expectations with respect to ongoing litigation;
- our expectations regarding the effects of existing and developing laws and regulations, including with respect to privacy, data protection and information security, as well as taxation;
- the impact of the military conflict in Ukraine and related sanctions against Russia and Belarus on our business, including inflationary pressures and interest rate risks;
- our ability to manage and insure risk associated with our business;
- our expectations regarding new and evolving markets;
- our ability to develop and protect our brand;
- our ability to maintain the security and availability of our platform and protect against data breaches and other security incidents;
- our expectations and management of future growth;
- our ability to continue to expand internationally and our exposure to fluctuations in foreign currencies;
- our expectations concerning relationships with third parties, including channel, system integrator and technology partners;
- our ability to obtain, maintain, protect, enhance, defend or enforce our intellectual property;
- our ability to utilize open source software in our platform and offerings;
- our ability to successfully acquire and integrate companies and assets;

- the attraction and retention of qualified employees and key personnel, including our direct sales force;
- our estimated total addressable market; and
- the increased expenses associated with being a public company.

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.

You should not rely upon forward-looking statements as predictions of future events. We have based the forward-looking statements contained in this Annual Report on Form 10-K primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition, results of operations, and prospects. The outcomes of the events described in these forward-looking statements are subject to risks, uncertainties, and other factors related to our proposed acquisition by entities affiliated with Thoma Bravo and those described in the section titled “Risk Factors” and elsewhere in this Annual Report on Form 10-K. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this Annual Report on Form 10-K. We cannot assure you that the results, events, and circumstances reflected in the forward-looking statements will be achieved or occur, and actual results, events, or circumstances could differ materially from those described in the forward-looking statements.

The forward-looking statements made in this Annual Report on Form 10-K relate only to events as of the date on which the statements are made. We undertake no obligation to update any forward-looking statements to reflect events or circumstances after the date of this Annual Report on Form 10-K or to reflect new information or the occurrence of unanticipated events, except as required by law. We may not actually achieve the plans, intentions, or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements.

Part I

Item 1. Business

Overview

ForgeRock, Inc. (the “Company” or “ForgeRock”) supports billions of identities to help people simply and safely access the connected world — from shopping and banking to accessing company networks to get their work done. We make this possible through a unified and extensive identity platform to enable enterprises to provide exceptional digital user experiences without compromising security and privacy. This allows enterprises to deepen their relationships with customers and increase the productivity of their workforce and partners, while at the same time providing better security and regulatory compliance.

Identity is foundational to the growth of enterprises in the era of digital transformation because it enables enterprises to create frictionless user experiences that are both simple and secure. Digital identity has become a top priority for enterprises, and is viewed as a way to grow business and gain competitive advantage by enabling personalized, seamless, and secure omnichannel experiences. We are uniquely positioned to expand our share of this growing market by addressing emerging customer needs and by continuing to displace legacy, homegrown, and point identity solutions that cannot meet the functionality, performance, and scale that enterprises require.

Our proprietary multi-tenant SaaS architecture with complete tenant isolation enables enterprise-grade data protection and performance. We maximize performance by not throttling or rate limiting individual customer environments, which can be critical for enterprises especially during large usage spikes such as Black Friday and Cyber Monday. Our platform is purpose-built for enterprises to create natural and frictionless identity experiences while providing capabilities to secure the enterprise in a Zero Trust environment. We are unique in the identity market due to the combination of: (1) our full suite platform that works for all kinds of identities, integrates with complex environments, and operates at high scale and performance; (2) the availability of our platform through multiple deployment options; and (3) our recognition as a market leader by premier industry analysts.

Our land-and-expand business model is centered on our ability to help our customers succeed and deliver on their value expectations. Our strong dollar-based net retention rate is further driven by our continuous investments in technology innovation and significant modular additions to our product portfolio. Once customers experience the benefits of our platform, they often expand their investments with ForgeRock in four different ways – through more identities, more use cases, more product modules, and more deployments. We have successfully sold our platform to a variety of C-suite level decision makers who are driving business transformation initiatives with increasing budgets year-over-year.

Pending Merger

On October 10, 2022, the Company entered into an Agreement and Plan of Merger (the “Merger Agreement”) with Project Fortress Parent, LLC (“Parent”) and Project Fortress Merger Sub, Inc. (“Merger Sub”), pursuant to which Merger Sub will merge with and into ForgeRock (the “Merger”) and ForgeRock will continue as the surviving corporation in the Merger, as a wholly owned subsidiary of Parent. Parent and Merger Sub are affiliates of Thoma Bravo.

Under the Merger Agreement, at the effective time of the Merger, each issued and outstanding share of the Company’s Class A common stock and Class B common stock (except for certain shares specified in the Merger Agreement) will be canceled and automatically converted into the right to receive cash in an amount equal to \$23.25 per share, without interest.

Completion of the Merger remains subject to the satisfaction of certain terms and conditions set forth in the Merger Agreement, including (i) the absence of any order issued by any governmental entity of competent jurisdiction or any law applicable to the merger that, in each case, prevents, materially restrains, or materially impairs the consummation of the Merger; and (ii) the expiration or termination of the waiting period applicable to the Merger pursuant to the Hart-Scott-Rodino Antitrust Improvements Act of 1976 (“HSR Act”), and the absence of any agreement with any governmental authority not to consummate the Merger.

On December 22, 2022, ForgeRock and Parent each received a request for additional information and documentary material (together, the “Second Request”) from the Department of Justice (the “DOJ”) in connection with the DOJ’s review of the Merger. The issuance of the Second Request extends the waiting period under the HSR Act until 30 days after both ForgeRock and Parent have substantially complied with the Second Request.

On January 12, 2023, the Company received approval of the Merger Agreement by the affirmative vote of ForgeRock’s stockholders holding a majority of the outstanding voting power of ForgeRock’s common stock.

ForgeRock and entities affiliated with Thoma Bravo have entered into an agreement (the “Timing Agreement”) with the DOJ in connection with the Merger and the Second Request. Under the Timing Agreement, ForgeRock and Thoma Bravo have agreed that they will certify compliance with the Second Request no earlier than May 1, 2023, and will not consummate the Merger less than 75 days after compliance with the Second Request. The Timing Agreement does not prevent ForgeRock and Thoma Bravo from consummating the Merger sooner if the DOJ closes its investigation of the Merger before that date. The expiration or termination of the waiting period applicable to the Merger pursuant to the HSR Act (and the absence of any agreement with any governmental authority not to consummate the Merger) is the only remaining approval or regulatory condition required to consummate the closing of the Merger under the Merger Agreement.

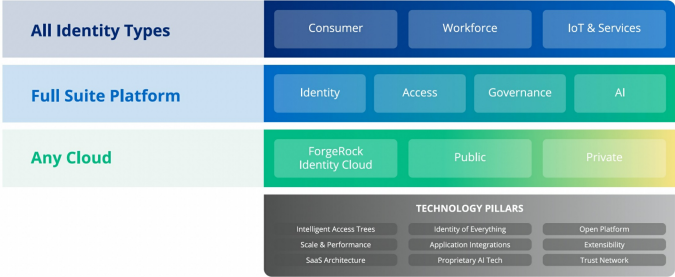
Either ForgeRock or Parent may terminate the Merger Agreement under certain circumstances, including if (1) the effective time has not occurred by October 10, 2023 (the Termination Date”), which may be extended to January 10, 2024 if certain closing conditions related to the receipt of required regulatory approvals have not been satisfied at such time, unless ForgeRock delivers written notice to Parent prior to October 10, 2023 specifying that the Termination Date shall not be so extended or (2) a governmental authority of competent jurisdiction has issued a final non-appealable governmental order preventing the Merger.

Upon consummation of the Merger, ForgeRock will cease to be a publicly traded company and its Class A common stock will be delisted from the New York Stock Exchange.

The ForgeRock Identity Platform

We provide a leading modern identity platform that enables enterprises to secure, manage, and govern the identities of everything—consumers, employees and partners, APIs, microservices, devices, and Internet of Things (“IoT”). Organizations around the world leverage our platform to create seamless and secure digital experiences for collectively over three billion identities.

The ForgeRock Identity Platform includes a full suite of identity management, access management, identity governance, and AI-powered autonomous identity capabilities to serve the CIAM, AM, and IGA needs of enterprises. Our platform is deployable in a variety of configurations that can be combined, including self- managed environments such as public and private cloud environments, and through ForgeRock Identity Cloud.



We provide the ability to manage multiple identity types:

- **Consumer.** Our platform enables enterprises to provide secure digital identity experiences for their consumers. User journeys built on our platform provide recognition and personalization across channels and devices, which we believe leads to better customer acquisition, loyalty, and retention while reducing friction and fraud.
- **Workforce.** Our platform helps enterprises increase the productivity of their employees, partners, and contingent workers by automatically enabling access to appropriate systems during the worker lifecycle. Our platform also helps reduce enterprise risk by securing system access and governing that the provisioned access is appropriate.

- **IoT and Services.** Our platform helps enterprises secure non-human identities, including IoT, machine identities, bots, APIs, and microservices.

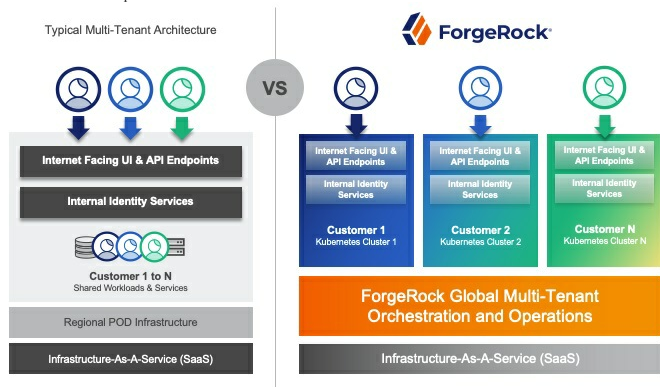
We have an integrated set of comprehensive services to orchestrate and secure the user identity journeys across four fundamental areas:

- **Identity Management.** Automates the identity lifecycle process, including initial set-up, provisioning, transfers, changes, privacy considerations, security protections, and departures.
- **Access Management.** Provides simple and secure access management, using rich context and adaptive intelligence to make continuous access decisions.
- **Identity Governance.** Manages and reduces risk from users having excessive or unnecessary access to applications, systems, devices, and data.
- **Autonomous Identity and Access.** Provides an enterprise-wide view of access, streamlines and automates governance processes, detects anomalies and prevents common authentication attacks, and reduces risk related to digital identities.

Why Leading Enterprises Choose ForgeRock

- **We enable enterprises to deliver exceptional user experiences without compromising security.** We provide capabilities, such as passwordless and usernameless authentication that free users from the challenges and security risks associated with weak and forgotten credentials. Further, our Intelligent Access Trees enable our customers to quickly create flexible and tailored user identity journeys allowing for frictionless, seamless, and consistent omnichannel user experiences that also result in enhanced security.
- **We offer a full suite of capabilities that enable enterprises to secure, manage, and govern identities in a unified modern platform** Our platform includes a full suite of identity functionality across CIAM, AM, and IGA, and a differentiated identity object modeling approach that supports all identity types. Our unified platform is built to work with enterprises' complex landscape of applications and infrastructure and fulfill their identity needs across four fundamental areas: identity management, access management, identity governance, and autonomous identity.
- **Our platform manages all identity types.** Under our Identity of Everything philosophy, we built our platform for consumers, the workforce, and IoT and services. Further, our platform enables our customers to understand and set policies based on the relationships between different identities. For example, a parent and child relationship where the parent must authorize transactions on behalf of the child, or a connected car with different drivers in a household with various restrictions. While each identity has different requirements, our platform can unify the enterprise architecture and security design across multiple identity types.
 - **For consumers,** our platform enables enterprises to create personalized, simple, and secure identity journeys across multiple services and devices, regardless of where a consumer begins or continues their experience.
 - **For the workforce,** our platform enables enterprises to increase the productivity of their workforce and partners by allowing users to login from anywhere, on any device, and quickly access necessary information with enterprise-grade security. Our platform provides foundational context designed to continuously ensure users are who they say they are as well as constantly fine tune user access based on signals and other gathered information.
 - **For IoT and services,** since there are no biometrics or passwords that devices can use, our platform is designed to close the IoT security gap by allowing enterprises to create trusted identities to secure authenticity and authorization of IoT devices and their transactions or data streams. Our platform is differentiated in its ability to define identity objects and their attributes, and relationships between them.
- **Our platform delivers enterprise-grade performance and scalability to serve mission-critical needs.** Since our launch in 2010, our capabilities around performance and scale, rich identity functionality, deployment flexibility, and extensive integration and interoperability have been purpose-built to meet the specific requirements of global enterprises. Our ability to serve mission-critical needs in complex environments for large customers enables us to grow our base of large customers and expand within each of them.

- **Our differentiated SaaS architecture facilitates strong customer data protection and high performance.** We enable our customers to choose how they want to deploy our software in their complex, heterogeneous environments—whether it be a self-managed deployment in their private or public cloud environments, our SaaS offering, or a combination of both.
- **Our proprietary tenant isolation approach is designed to enhance individual customers' data security and sovereignty.** We have improved upon a typical multi-tenant SaaS architecture by never commingling customer data with each other. In addition, our customers' data resides only in locations that the customer chooses, which enables our customers to comply with data privacy regulations, such as the GDPR in the European Union.
- **Our architecture does not limit performance of individual customers.** Our architecture is designed to maximize performance by not throttling or rate limiting individual customer environments. We also protect against “noisy neighbor” issues so that load from one customer will not affect another customer's performance.
- **Same codebase as our self-managed platform.** Our SaaS offering leverages the same codebase as our self-managed offering, which enables us to create or modify functionality that can be released on both deployments, and enables our customers utilizing our self-managed deployment to add or migrate to our SaaS deployment more easily. We enable our customers to choose how they want to deploy our software in their complex, heterogeneous environments—whether it be a self-managed deployment in their private or public cloud environments, our SaaS offering, or a combination.
- **Designed to be deployable as SaaS or in public and private cloud environments using DevOps.** Our platform utilizes Kubernetes and Docker containerization and is deployable with DevOps workflows, and has been certified to run in GCP, AWS, Azure, or can be run on a customer's private cloud.



- **Extensive integrations enable our platform to be the single view of identity and provide powerful extensibility in complex and heterogeneous environments.** Our platform has extensive integration capabilities that enable us to integrate with the myriad of applications and infrastructures that exist within our enterprise customers' heterogeneous IT environments. We are also able to leverage our Trust Network, an ecosystem of partners that extend our rich native functionality with additional vertical-specific authentication, biometrics, digital identity proofing, and risk management capabilities.

- **Proven track record of innovation.** We have consistently set the standard of innovation in the identity market, anticipating major market trends and introducing new capabilities to support them. We are a pioneer of the development of advanced capabilities, such as Identity of Everything, Intelligent Access Trees, Continuous Security, certifying deployments on public cloud and multi-cloud with DevOps, enterprise-grade SaaS, passwordless and usernameless authentication using FIDO2 Webauthn, and AI-based Autonomous Identity and Access with proprietary algorithms to automate identity processes. We intend to continue investing to extend our leadership in the CIAM, AM, and IGA markets by developing or acquiring new products and technologies.
- **Management team with deep identity domain expertise.** Our management team's collective experience and deep knowledge of the identity space allows us to maintain our position as an innovation leader. Our management team is a driving force behind our vision, mission, culture, and focus on customer success. Our leadership enables us to continuously deliver products that enterprises need and want. They are also critical in building upon our culture which we believe is vital to our success.

Our Growth Strategy

- **Innovate and advance our platform.**
 - *Enhance SaaS.* Add more products and functionality to accelerate our ForgeRock Identity Cloud platform, which we launched in 2020.
 - *Enhance Governance.* Continue to add functionality to our Governance offerings, which we launched in December 2019.
 - *Enhance AI.* Invest in AI capabilities to automate decision making and deepen the security of our platform.
 - *Further build our Trust Network.* Further develop and expand our Trust Network to help source and support relationships, provide technology, and enhance our go-to-market.
- **Acquire new customers.**
 - *Brand awareness and lead acceleration.* Continue to invest in our brand and demand-generation to further expand our pipeline.
 - *Partner and alliance leverage.* Continue to capitalize on key strategic partnerships and alliances, such as our alliances with GSIs, such as Accenture, Deloitte, and PwC, to win new business.
 - *Multiple entry points.* The extensive breadth of our platform facilitates new customer acquisition by allowing customers to choose from: (1) numerous product modules across identity management, access management, identity governance, and autonomous identity, (2) identity types across consumer, workforce, and IoT and services, and (3) deployments across our self-managed and SaaS offerings.
 - *New geographies.* Enter new countries within our existing global regions.
 - *New types of buyers.* Address the needs of all identity constituents within the enterprise and expand adoption beyond the C-suite to developers and business unit leaders.
 - *Expand into mid market.* Leverage the ease of deployment of our SaaS offering to accelerate traction in smaller enterprise and mid-market organizations.
- **Expand within our existing customer base.**
 - *More identities.* Increase the utilization of our platform as our customers grow their identity footprint within existing use cases, as well as adding new use cases.
 - *More identity types.* Cross-sell additional identity types to our customers across consumer, workforce, and IoT and services.
 - *More product modules.* Cross-sell more product modules across identity management, access management, identity governance, and autonomous identity.
 - *More SaaS.* Leverage the flexibility of our platform to allow our customers to seamlessly add or transition to our SaaS offering.
 - *Customer success.* Maintain our focus on customer success to expand within our existing customer base.

Our Products

Our products and capabilities include the following:

Identity Management	Access Management	Identity Governance	Autonomous Identity and Access
◆ Onboarding/Registration and Progressive Profiling ◆ Identity Lifecycle and Relationship Management ◆ Identity Provisioning and Synchronization ◆ User Self-Service ◆ Personalization ◆ Delegation ◆ Privacy and Consent Management	◆ Passwordless, Usernameless and Multi-factor Authentication ◆ Single Sign-On ◆ Contextual and Adaptive Risk-based Access ◆ Fine-grained Authorization ◆ API and Microservices Security ◆ Secure Impersonation and Data Sharing	◆ Access Requests ◆ Access Reviews and Certifications ◆ Segregation of Duties ◆ Role and Entitlement Management ◆ Policy Management ◆ Identity Workflows ◆ Reporting and Analytics	◆ Predictive Confidence Scores for Access ◆ Over provisioned Access Detection and Access Revocation Recommendations ◆ Outlier Detection ◆ Identity Automation Recommendations ◆ Role Mining and Recommendations ◆ Joiner, Mover, Leaver Access Automation ◆ Authentication anomaly detection ◆ Common attack prevention

- Identity Management** – Our Identity Management product fully automates the identity lifecycle process and includes the following capabilities:
- *Onboarding/Registration and Progressive Profiling.* Our platform facilitates the initial establishment of a digital identity at the onboarding or registration stage, including by integrating into the HR workflow for employee onboarding or enabling the account registration and set-up process. After registration, our platform also helps enterprises to progressively gather profile information to minimize friction.
 - *Identity Lifecycle and Relationship Management.* As the lifecycle of the consumer or workforce progresses, changes in access are often necessary. Our platform enables enterprises to automate this process, eliminating error-prone manual intervention, and providing a consistent and efficient way to create, modify, and remove accounts while maintaining a high level of security. Furthermore, our platform can understand and traverse relationships between identities and apply policies to those relationships.
 - *Identity Provisioning and Synchronization.* Our platform centralizes and automates identity provisioning and deprovisioning processes (granting and revoking access) across systems and applications within an enterprise when users join, move, or leave the identity ecosystem. With our platform, continuous updates of identity changes are synced, mapped, and reconciled in real time.
 - *User Self-Service.* Our platform empowers users to easily remember their usernames, reset their passwords, and share discrete data over time, including by progressive profiling, without interrupting the user workflow, which helps enable a frictionless user experience and boosts business operational efficiency.
 - *Personalization.* Our platform saves and gathers information in order to provide personalized and tailored identity experiences based on user preferences, demographics, device types, risk profiles, and more.
 - *Delegation.* Our platform enables the ability to grant administrative access for specific privileges without providing full administrative access. For example, we can allow users with a help desk or support role to update another user's information without allowing them to delete user accounts or system configurations.
 - *Privacy and Consent Management.* Our platform enables users to manage their own profile details, manage data sharing preferences, understand (and reject) terms and conditions, enjoy the right to be forgotten, and understand the devices connected to their account by providing a comprehensive, standards-based profile and privacy and consent management dashboard.

Access Management – Our Access Management product provides simple and secure access management using rich context and adaptive intelligence to make continuous access decisions and includes the following capabilities:

- *Passwordless, Usernameless, and Multi-factor Authentication.* We provide standards-based, out-of-the box usernameless and passwordless authentication based on the FIDO2 WebAuthn standard with the added convenience of biometrics. We also provide several common multi-factor authentication methods to enable users to more securely authenticate with convenience and flexibility.
- *Single Sign-On (SSO).* We enable seamless SSO experiences across different channels, including APIs and services, and across application types, from modern to legacy.
- *Contextual and Adaptive Risk-based Access.* We provide an array of capabilities for helping support modern Zero Trust authorization architectures. We allow customers to combine identity and device information by leveraging the ability to capture user and device context during login and at every transaction level if needed and respond to contextual changes. During use, the context is recreated and compared to context during login, allowing customers to make access alterations such as automatic throttling, data redaction, or access denials dynamically.
- *Fine-grained Authorization.* In addition to creating detailed policies for specific user groups, permissions, and environments, our policy engine can be used to protect custom and non-HTTP-based resources such as objects, data, and IoT components.
- *API and Microservices Security.* Our platform secures API endpoints and microservices including ingress/egress control, throttling, and authentication with our identity-aware proxy gateways, Identity Gateway and Microservices Security.
- *Secure Impersonation and Data Sharing.* Our platform allows users to provide access to data or accounts on behalf of others in a secure and auditable way without the need to share credentials or passwords.

Identity Governance – Our Identity Governance product manages and reduces risk to enterprises from users having excessive or unnecessary access to applications, systems, devices, and data and includes the following capabilities:

- *Access Requests.* We allow users to request access to systems or applications through integration with help desk or service ticketing systems which can then be routed automatically according to business-defined identity workflows for approvals. Administrators can also use our platform to provide users with automated, policy-based access based on identity and role assignments.
- *Access Reviews and Certifications.* We allow business line managers or other users with access rights validation to quickly grant, enforce, or revoke secure access to systems and applications according to established business policies and workflows, to increase workforce productivity.
- *Segregation of Duties.* We provide a unified view of the entitlement landscape across the enterprise, minimizing risk of segregation of duties violations that could result in a security risk or possible internal fraud.
- *Role and Entitlement Management.* Many enterprises have different and multiple environments for their applications and services. We enable a centralized and unified view of identities, roles, and entitlements so that they can be easily managed via an extensible model.
- *Policy Management.* We allow enterprises to define, apply, and enforce compliance policies in a preventive and detective manner, preventing toxic access combinations and ensuring regulatory compliance. Administrators can also use our platform to define policies based on the relationships between different types of identities.
- *Identity Workflows.* We enable enterprises to connect their business processes with identity events, such as identity synchronization and reconciliation, across identity infrastructures, allowing for appropriate reviews and administrative action, to reduce enterprise risk.
- *Reporting and Analytics.* We provide out-of-the box reporting and ad hoc querying to enable enterprises to stay on top of their identity programs and compliance postures.

AI-powered Autonomous Identity and Access – Our Autonomous Identity and Access product provides an enterprise-wide view of access and streamlines and automates governance processes and reduces risk related to digital identities and includes the following capabilities:

- *Predictive Confidence Scores for Access.* Using proprietary AI algorithms, our platform analyzes enterprise data to assign confidence scores for provisioned access, which highlights anomalies that should be further actioned.

- *Over provisioned Access Detection and Access Revocation Recommendations.* Our platform displays enterprise entitlements graphically on a user interface console to help easily detect over-provisioned access that could pose a security risk and identify high-risk access entitlement assignments that are candidates for access revocation.
- *Outlier Detection.* Our platform flags any provisioned access for remedial action that is an outlier to predicted normal patterns.
- *Identity Automation Recommendations.* Our platform reduces the burden on managers who otherwise must manually approve new entitlements by automatically approving high confidence, low-risk access requests and automating the re-certification of entitlements.
- *Role Mining and Recommendations.* Our platform is designed to enable intelligent role mining by identifying redundant roles and making recommendations to reduce the number of roles in the enterprise, which can significantly improve an enterprise's ongoing security posture.
- *Joiner, Mover, Leaver Access Automation.* Our platform provides users with the access to applications they need to be rapidly productive during the worker lifecycle without manual review and fulfillment.
- *Authentication anomaly detection.* Our platform baselines normal user behavior and detects anomalous activity using AI during authentication.
- *Common attack prevention.* Our platform detects common attack types including credential stuffing, brute force, impossible traveler, and suspicious IP address.

Our Technology

Our differentiated architecture and design unify Identity Management, Access Management and Governance in one end-to-end platform. It also leverages the same underlying architecture across all identity types and use cases, enabling rapid development and innovation. The technical differentiators of our platform include:

- *Intelligent Access Trees.* Our platform includes Intelligent Access Trees, which leverage a visual designer with a drag-and-drop interface that allows enterprises to easily orchestrate, personalize, and secure user journeys to deliver meaningful user experiences without compromising security. These journeys can incorporate real-time digital signals such as device, contextual, behavioral, analytics, and risk-based factors to provide more personalized experiences that incorporate user-choice, omnichannel user recognition and better security.
- *"Identity of Everything."* While traditional IAM struggles to manage non-human identities, our flexible data model can define any kind of identity object and its attributes, which provides enterprises the flexibility of managing multiple identity types, including non-human identities.
- *Open Platform.* Our platform was built to integrate with complex enterprise environments, which consist of heterogeneous cloud and data center environments, myriad on-premise and SaaS applications, corporate- and personally-owned devices, and emerging IoT services. Enterprises need cohesiveness across their IT environments and we make this possible through our technology stack:
 - *Identity Gateway.* Our Identity Gateway is a lightweight, flexible, and high-performance proxy that can provide identity services and security to web or application traffic. Acting as a bridge between legacy and modern web applications and identity management platforms, it enables the transition of identity integration of the application from legacy to modern.
 - *SDKs.* Our SDKs allow developers to quickly integrate identity to web or mobile applications without needing to understand the inner-workings of identity. Leveraging our Intelligent Access Trees, the SDKs step through each stage of a user journey via callbacks empowering developers to build applications that can handle changes in journeys in real time without the need to redeploy the application. They have the option to collect device profile information and automatically generate device fingerprints into the user's profile.
 - *Microservices Security.* Our lightweight, high performance sidecar proxy can be deployed directly into the namespace of microservices to provide east-west service-to-service security while integrating identity into the services.
 - *Policy Agents.* Our policy agents are designed to plug directly into application servers to ease integration of identity into legacy applications, protecting them from unauthorized access.
 - *Identity Edge Controller.* We provide a device-embeddable controller that can bring identity security to the edge of where code runs, including physical things.

- *ICF Connectors.* We leverage the standards-based Identity Connector Framework (ICF) to connect to multiple systems and applications by provisioning and synchronizing identities between them.
- *APIs.* Our platform is REST API enabled, which provides enterprises with the flexibility to integrate deeply.
- *Extensibility.* We provide extensive hook points in the platform that enable enterprises to extend core functionality with plug-ins and scripting to meet virtually any business need.
- *Open Standards.* We provide support for major identity standards such as OAuth2, SAML, OIDC, and SCIM, and we embrace new open standards such as delivering an early integration with FIDO2 WebAuthn passwordless authentication standards or the UMA protocol.
- *Scale and Performance.* Our platform is used to manage billions of identities globally. This is made possible by some key design principles:
 - *High Availability.* Our applications including our next-generation directory services provide the ability to deploy in highly-available configurations that provide resiliency against unforeseen events as well as the ability to perform maintenance with no downtime.
 - *Stateless and Stateful Session Management.* Our highly flexible session management enables both stateless and stateful sessions. Stateless session management allows for highly distributed elastic deployments with nearly unlimited horizontal scalability. Stateful session management enables complex, multi-site failover environments to always be highly available to end-users.
 - *Horizontally Scalable.* Our platform allows deployments to be horizontally scaled to meet the most demanding performance requirements.
- *SaaS Architecture.* Our proprietary SaaS architecture has been purpose-built to solve real world enterprise problems, recognizing that most enterprises have complex IT environments and need a IAM solution that fits their environments.
 - *Multi-tenant SaaS with Complete Tenant Isolation.* Our proprietary SaaS architecture provides multi-tenant service with complete tenant isolation. Because each customer tenant in our Cloud is isolated, they are insulated from performance concerns arising from other customer usage. Furthermore, being isolated means a customer's data is not co-mingled with any others.
 - *One Platform, Any Cloud.* ForgeRock utilizes one core platform for all deployment scenarios, SaaS and self-managed. This enables enterprises to meet their IT requirements with the same technology and enables an easier transition from on-premise to cloud for their applications and workloads.
 - *Extreme Flexibility.* The ForgeRock Identity Cloud treats both cloud and on-premise applications the same way. It can even co-exist with other legacy IAM solutions running on premise. Enterprises can also quickly augment legacy systems with new capabilities such as Intelligent Access Trees and multi-factor authentication while planning and executing on their cloud migration strategy.
 - *Continuous Integration/Continuous Delivery Compatible.* Identity is a critical enterprise technology and needs protection from user mistakes, such as accidentally deleting a critical configuration or set of identities. The ForgeRock Identity Cloud provides development, staging, and production environments, and both staging and production environments are immutable, so that changes are promoted from one environment to the next, protecting enterprises from unexpected changes or mistakes.
- *Proprietary AI Technology.* Our proprietary AI technology deploys using a microservices architecture that scales linearly as the load increases. It is capable of quickly processing millions of access points and allows enterprises to configure the machine learning process and prune less productive rules. Enterprises can run analyses, predictions, and recommendations frequently to improve the machine learning process. Our Analytics Engine provides transparent and explainable results that lets enterprises get insight into why end-users have the access they have or what access they should have, and detects anomalies and prevents common attacks during authentication.

Our Customers

Our customer base includes many of the world's leading brands and includes direct and indirect customers, of which direct customers are those we contract with directly (whether sourced by us or through a partner or reseller), and indirect customers include customers that receive the benefit of using components of our software by contracting with certain third parties such as resellers, system integrators, managed service providers, or other channel partners, as well as with original equipment manufacturers ("OEMs").

We focus on the number of large customers because it represents our ability to land-and-expand with large enterprises and the number of large customers is a key indicator of our ability to grow our business and revenue in future periods. We define a large customer as a customer with \$100,000 or greater Annual Recurring Revenue ("ARR") as of a measurement date. As of December 31, 2022, 2021 and 2020, we had 449, 394 and 325 large customers with \$100,000 of ARR or greater, respectively, representing 93%, 90% and 86% of our total ARR as of such dates. All of our large customers are direct customers. No single customer accounted for more than 4% of our total ARR in 2022 and 3% of our total ARR in 2021 and 2020. No single customer accounted for more than 10% of our total revenue in 2022, 2021 and 2020.

Our customers are based in more than 50 countries and across a diverse set of industries.

Marketing, Sales and Partners

Marketing

Our marketing organization is focused on building our brand reputation, increasing awareness of our platform, and driving customer demand. As part of these efforts, we execute on content marketing, search engine optimization and awareness ads, social media, press and news coverage, industry analyst recognition, and customer success stories, among other initiatives. We also continuously strengthen our position as a thought leader in our industry by participating in speaking engagements where we provide expert advice, updates on the state of the digital identity industry, and educate the public about the importance of digital identity and our platform.

Sales

We sell our platform through our direct sales organization, which is composed of our major account executives, solution engineers, sales development representatives, customer success managers, and partner representatives. Our direct sales teams are located in geographic regions near our customers and prospective customers, such as North and South America (Americas), EMEA and APAC. This enables our direct sales teams to effectively target enterprises in these regions, engage in timely dialogue with them to assess and provide solutions for their digital identity needs, close the sale, implement our platform, and support their ongoing needs with our dedicated customer success managers. Our ongoing support and dialogue with our customers fosters a "land-and-expand" business model where customers typically purchase one identity type initially and expand by adding more identities, use cases, product modules, and deployments.

Partners

Our strong network of strategic global channel partners source and influence opportunities for us, providing leverage and execution capabilities across the globe. These strategic global channel partnerships not only provide us with a significant source of lead generation but also a global network of certified and trained implementation professionals. Our alliances, including global strategic consulting firms and global systems integrators ("GSIs"), such as Accenture, Deloitte, and PwC, often promote our platform as part of large-scale digital transformation projects they drive by identifying opportunities in which our platform can help accelerate business initiatives and improve user experience. We also partner with leading regional consulting firms and implementation partners. These highly skilled regional partners not only provide subject-matter expertise in the implementation of specific use cases, but they also act as an extension of our direct sales force by identifying and referring opportunities to us.

We also acquire customers through OEM partners or customers who utilize components of our platform to deliver services and strategic alliance partners such as Google Cloud, where ForgeRock is a premier partner for digital identity. Our partners help source and support relationships with new and existing customers, as well as provide technology and go-to-market benefits.

We foster an ecosystem of Trust Network partners that enhance the value of our platform to enterprise customers by providing complementary technologies in categories such as strong authentication, risk and fraud management, behavioral biometrics, and identity proofing and enrichment. These technologies seamlessly plug into our platform through our Intelligent Access Trees.

Research and Development

Continued investment in research and development is critical to our business. We believe our research and development efforts are imperative to maintaining and extending our competitive advantage. Our research and development efforts are focused primarily on building industry leading solutions, addressing all primary use cases, enhancing deployment flexibility and providing seamless integration across cloud and on-premise applications. We regularly release updates to our platform which incorporate new features and enhancements to existing ones.

We have invested considerable time and resources into building a world-class research and development organization that continually enhances our broad, market-leading platform. Our research and development employees are primarily located in the United States, the United Kingdom, and France. We continue to invest in our platform to maintain and extend our market leadership.

Competition

The IAM market in which we operate is characterized by intense competition, constant change, and innovation. We face competition from (1) legacy providers such as CA Technologies, IBM and Oracle, (2) cloud- only providers such as Okta, (3) companies that provide only a subset of functionality across identity, access and governance such as Okta, Ping (acquisition completed by affiliates of Thoma Bravo in October 2022) and SailPoint (acquisition completed by affiliates of Thoma Bravo in August 2022), and (4) homegrown solutions that are designed to solve a limited identity use case and are difficult to secure, maintain and scale, and quickly become obsolete. Microsoft and other companies that offer a broad array of IT solutions also compete in our market.

We believe the principal competitive factors in our market are:

- enterprise-grade scalability and performance;
- breadth of use cases supported by a single platform or solution;
- ability to serve the most complex and largest identity environments;
- single view of all identities in one unified platform;
- reliability and effectiveness in maintaining secure identity management;
- ability to deploy in a variety of environments;
- ability of customers to use a platform or solution to achieve and maintain compliance with compliance standards and audit requirements;
- ease of integration with an organization's existing IT infrastructure and security investments;
- capability for customization and configurability;
- speed at which a platform can be deployed;
- ease of use;
- customer experience;
- total cost of ownership;
- strength of sales and marketing efforts, including partner relationships;
- global reach and customer base;
- brand awareness and reputation;
- innovation and thought leadership; and
- quality of professional services and customer support.

We believe we compete favorably on these factors. However, some of our current and potential future competitors may enjoy competitive advantages, such as greater name recognition, longer operating histories, larger market share, larger existing user bases and greater financial, technical, and other resources.

Intellectual Property

Our success depends in part on our ability to obtain, maintain, protect, defend, and enforce our intellectual property. We rely on a combination of patent, copyright, trademark, and trade secret laws in the United States and certain other jurisdictions, as well as contractual restrictions, to protect our intellectual property rights. We also license certain software and other intellectual property from third parties for integration into our product solutions, including open source software and other software available on commercially reasonable terms.

As of December 31, 2022, we owned three issued U.S. patents and 19 pending U.S. patent applications relating to certain aspects of our technology. With respect to our three issued U.S. patents, one is expected to expire in 2039 and two are expected to expire in 2040, assuming payment of all appropriate maintenance, renewal, annuity or other fees, and without taking into account any possible patent term adjustments or extensions. We cannot assure you that any of our pending patent applications will result in the issuance of a patent or whether the examination process will require us to narrow our claims. Our existing patents and any patents that are issued in the future may be contested, circumvented, found unenforceable, narrowed in scope or invalidated, and we may not be able to prevent third parties from infringing, misappropriating or otherwise violating them or any of our other intellectual property rights. Furthermore, our competitors or other third-parties may also claim that our technology infringes, misappropriates or otherwise violates their intellectual property rights. With regard to our brand, we have registered “ForgeRock” as a trademark in the United States, the United Kingdom, the European Union, Norway, and China. We have significant international operations and intend to continue to expand these operations, and effective patent, copyright, trademark, trade secret, and other intellectual property protection may not be available or may be limited in foreign countries.

We control access to, and use of, our solutions and other confidential and proprietary information through the use of internal and external controls, including contractual protections with employees, contractors, customers, partners, and other third parties. Despite our efforts to protect our trade secrets and proprietary rights through intellectual property rights, licenses, contractual provisions, and confidentiality and invention assignment agreements, unauthorized parties may still copy or otherwise obtain and use our software, technology, trade secrets, or proprietary or confidential information, and such risks may increase as we attempt to expand into jurisdictions where such rights are less easily enforced, or are more subject to reverse engineering or misappropriation due to local legal requirements. For more information, see the section titled “Risk Factors – Risks Related to Our Intellectual Property.”

Government Regulation

We are subject to various federal, state, local, and foreign laws and regulations, including those relating to data privacy, protection and security, intellectual property, employment and labor, workplace safety, consumer protection, anti-bribery, import and export controls, immigration, federal securities, antitrust and tax. In addition, we are subject to various laws and regulations relating to the formation, administration, and performance of contracts with our customers in heavily regulated industries and the public sector, which affect how we and our partners do business with such customers. Additional laws and regulations relating to these areas likely will be passed in the future, and these or existing laws and regulations may be interpreted or enforced in new or expanded manners, each of which could result in significant limitations on how we operate our business. New and evolving laws and regulations, and changes in their enforcement and interpretation, may require changes to our platform, offerings or business practices, and may significantly increase our compliance costs and otherwise adversely affect our business, financial condition, and results of operations. As our business expands to include additional platform functionalities and offerings, and our operations continue to expand internationally, our compliance requirements and costs may increase, and we may be subject to increased regulatory scrutiny.

See the section titled “Risk Factors – Risks Related to Our Legal and Regulatory Environment” for additional information about the laws and regulations we are subject to and the risks to our business associated with such laws and regulations.

Data Privacy and Cybersecurity

Many jurisdictions have enacted or are considering enacting or revising privacy, data protection or information security legislation, including laws, rules and regulations applying to the collection, use, storage, transfer, disclosure, or other processing of personal data, including for purposes of marketing and other communications.

For example, in June 2018, California enacted the California Consumer Privacy Act (“CCPA”), which took effect on January 1, 2020 and established a new privacy framework for covered businesses such as ours. The CCPA broadly defines personal information and gives California residents expanded privacy rights and protections, such as affording them the right to access and request deletion of their information and to opt out of certain sharing and sales of personal information. The CCPA provides for severe civil penalties and statutory damages for violations and a private right of action for certain data breaches that result in the loss of personal information. In November 2020, California voters passed the California Privacy Rights Act of 2020 (“CPRA”). Effective in most material respects as of January 1, 2023, the CPRA imposes additional obligations on companies covered by the legislation and significantly modifies the CCPA, including by expanding the CCPA with additional data privacy compliance requirements that may impact our business. The CPRA also establishes a regulatory agency dedicated to enforcing the CCPA and the CPRA. Other state legislatures are currently contemplating, and have passed or may pass, their own comprehensive data privacy and security laws, with potentially greater penalties and more rigorous compliance requirements relevant to our business. Following the enactment of the CCPA, in 2021, Virginia enacted the Virginia Consumer Data Protection Act of 2021, and Colorado enacted the Colorado Privacy Act. Additionally, in March 2022, Utah enacted the Utah Consumer Privacy Act, and in May 2022, Connecticut enacted the Connecticut Act Concerning Personal Data Privacy and Online Monitoring. Each of these state statutes shares similarities with the CCPA. Additionally, many state legislatures have already adopted legislation that regulates how businesses operate online, including measures relating to privacy, data security, data breaches, and the protection of sensitive and personal information.

Internationally, many jurisdictions have established their own legal frameworks governing privacy, data protection, and information security with which we may need to comply. For example, the EU has adopted the GDPR, which went into effect in May 2018 and contains numerous requirements and changes from previously existing EU law, including more robust obligations on data processors and heavier documentation requirements for data protection compliance programs. The GDPR requires data controllers to implement more stringent operational requirements for processors and controllers of personal data, including, for example, transparent and expanded disclosure to data subjects about how their personal data is to be used, imposes limitations on retention of information, introduces mandatory data breach notification requirements, and sets higher standards for data controllers to demonstrate that they have obtained valid consent for certain data processing activities. The GDPR also imposes strict rules on the transfer of personal data to countries outside the EEA, including the United States. Fines for noncompliance with the GDPR are significant and can be up to the greater of €20 million or 4% of annual global turnover. The United Kingdom has enacted a United Kingdom version of the GDPR (combining the GDPR and the United Kingdom’s Data Protection Act 2018), which also authorizes significant fines, up to the greater of £17.5 million or 4% of annual global turnover. Other countries have also passed or are considering passing laws requiring local data residency or restricting the international transfer of data. Additionally, many jurisdictions outside the United States and EEA in which we have operations or for which such jurisdictions’ laws or regulations may apply to us or our operations, including, for example, Canada, Australia, New Zealand, and Singapore, maintain laws and regulations relating to privacy, data protection, and information security that provide for extensive obligations in connection with the use, collection, protection, and processing of personal data. Many of these legal regimes provide for substantial fines, penalties, or other consequences for noncompliance. We may be required to implement new measures or policies, or change our existing policies and measures or the features of our platform, in an effort to comply with U.S. and international laws, rules, and regulations relating to privacy, data protection and information security, which may require us to expend substantial financial and other resources and which may otherwise be difficult to undertake.

Although we are working to comply with applicable federal, state, and foreign laws, rules and regulations, industry standards, contractual obligations and other legal obligations that apply to us, those laws, rules, regulations, standards and obligations are evolving and may be modified, interpreted and applied in an inconsistent manner from one jurisdiction to another, and may conflict with one another, other requirements or legal obligations, our practices or the features of our platform.

Any failure or perceived failure by us to comply with federal, state or foreign laws, rules or regulations, industry standards, our internal or external privacy policies, contractual or other legal obligations relating to privacy, data protection or information security, or any actual, perceived or suspected security breach or incident, whether or not resulting in unauthorized access to, unavailability of, or acquisition, release, transfer, or other processing of personal data or other data, may result in enforcement actions and prosecutions, private litigation, significant fines, penalties and censure, claims for damages by customers and other affected individuals, regulatory inquiries and investigations or adverse publicity and could cause our customers to lose trust in us, any of which could have an adverse effect on our reputation and business. For more information, see “Risk Factors — Risks Related to Legal and Regulatory Environment — We are subject to stringent laws, rules and regulations regarding privacy, data protection and information security. Any actual or perceived failure by us to comply with such laws, rules and regulations, the privacy or security provisions of our privacy policy, our contracts or other legal or regulatory requirements could result in proceedings, actions or penalties against us and materially adversely affect our business.”

Our Culture and People

Our People

Our most valuable asset is our people. ForgeRock is the place where the best people do their best work. As of December 31, 2022, we had 923 employees, of which approximately 49% were in the United States and 51% were in our international locations. We supplement our workforce with contractors and consultants. We strive to drive a positive employee experience and maintain a good relationship with our people. Our priority is to attract the best, diverse workforce and at the same time, engage and grow our global team.

Our Identity and Values

Our Identity and Values live hand in hand. Our Values are what guide our decision making, give us a sense of what is important, of what is right. Our Identity is how our interactions make up our work environment, they inform our business practices and processes.

Our culture and values are critical to our success. Our values guide our interactions, business, our product development, our practices and our brand. Our values and cultural tenets have delivered tangible financial and operational benefits for our customers, employees and stockholders.

Our Identity



Global teams built on trust
Teamwork and trust go hand in hand. Our teams are made from a wonderful array of differences in multiple locations, yet we're all the same where it counts: we know we're here for each other.

only engages with our customers
We started out as disruptors and we'll remain disruptors. It takes inner strength to challenge and it's this inner strength we show in our interactions with each other and our customers

Always raising the bar
Our aim is to be better tomorrow than today, and that means always learning, always searching out ways to improve ourselves and innovate to ever-higher levels.

Winning together
At the core of every decision we take is the knowledge that we're at our best when we help others win. We're tenacious, we're reliable and we're always fighting for what's best - be it for our customers, our people, our partners, our local communities. When they win, we all win.

Our Values



Passion with Purpose

We are passionate about our company, our customers, and our work. Collectively, we contribute to our success.



Take Ownership

We take initiative and make things happen with pride and urgency. We are accountable and expect the same in return.



Embrace Collaboration

We communicate openly and transparently to build genuine relationships and achieve our shared company goals together.



Learn and Grow

We invest to grow as individuals and as a company. We like to win, and take time to recognize and celebrate our accomplishments along the way.



Respect Individuality

We welcome and respect our differences. We recognize the value each of us brings, and encourage each other to be our true selves.



Balance Matters

We support flexibility and work-life balance so we can bring our best to all our commitments.

Diversity, Inclusion, and Belonging

Diversity, Inclusion, and Belonging are how we talk about our business. It is not just about listening and responding to our employees but about the focus and commitment to becoming more inclusive and demonstrating that in our actions and results. Creating a workplace that is safe, supportive and inclusive attracts talent and helps ensure our current talent stays and grows at ForgeRock.

Compensation, Benefits and Wellness

ForgeRock provides robust compensation, global benefits and wellness programs that help support the varying needs of our employees. In addition to market-competitive base pay, short-term incentives and long-term equity incentives, our total rewards program includes comprehensive employee benefits and a variety of other health and wellness resources. We are committed to fair compensation and opportunity in our workplace. We have a pay for performance framework, including market reference range scale for compensation, and an always-on performance evaluation and feedback system. Wellness is embedded in our benefits and the employee engagements we design. The overall health and safety of each of our employees is imperative. It is important with the evolving landscape of hybrid work.

In addition, we are intentional in our approach to supporting the mental well-being of our people. Our value of “Balance Matters” encourages our people to take the time to ensure both professional and personal commitments get the attention they require. We have hosted mental and emotional health workshops and speaking events as well as provide mental health resources and access to support throughout our locations.

Future of Work

ForgeRock has a mission to enable our customers to simply and safely access the connected world. Our beliefs and strategies continue to help us shape the vision around the future of work at ForgeRock. A year from reopening our teams are continuing to demonstrate how to work effectively in a dynamic hybrid way. We are already seeing in person meetings and connections taking place. Our people managers will lead their teams to meet in person for opportunities such as team meetings, training, cross team collaboration, and other moments that being in person better serves the team and the work. We embrace a level of flexibility as it relates to how and where we do our work.

We know that work styles and preferences are different for everyone. Similar to our business philosophy and how we serve our customers, we do not apply a one-size-fits-all approach to how we work. We believe work is what you do, not where you do it. We are flexible and balance the needs of our people while also working to accommodate individual work preferences and supporting the health, safety and wellness of our people.

Growth and Development

One of our values is “Learn and Grow” and for that we continue to invest resources to develop talent and actively foster a learning culture where employees are empowered to grow personally and professionally. We offer new employee induction/onboarding and training programs to prepare our employees for career growth and individual development. We know that managers play an important role in how our employees feel about their work and their impact and the potential for growth. For that reason we are investing in the capabilities of our leaders through enablement sessions, coaching and external thought leadership.

Corporate Information

We were formed in October 2009 as ForgeRock AS under the laws of Norway. In February 2012, we underwent a reorganization and incorporated as ForgeRock, Inc. under the laws of the state of Delaware. Our principal executive offices are located at 201 Mission Street, Suite 2900, San Francisco, California 94105, and our telephone number is (415) 599-1100. Our Class A common stock is listed on the New York Stock Exchange (the “NYSE”) under the symbol “FORG.”

Available Information

Our website is located at www.forgerock.com, our investor relations website is located at investors.forgerock.com, and our blog is located at www.forgerock.com/blog. We have used, and intend to continue to use, our investor relations website, our blog, press releases, public conference calls and webcasts to disclose material non-public information and to comply with our disclosure obligations under Regulation FD. The following filings, including any amendments, are available through our investor relations website after we file them with the SEC: annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and our proxy statements for our annual meetings of stockholders. These filings are also available for download free of charge on our investor relations website. The SEC also maintains an Internet website that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. The address of that website is www.sec.gov. The contents of these websites are not incorporated into this filing. Further, the Company’s references to the URLs for these websites are intended to be inactive textual references only.

Item 1A. Risk Factors.

Investing in our Class A common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information 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 audited consolidated financial statements and related notes. Our business, financial condition, and results of operations could also be harmed by risks and uncertainties not currently known to us or that we currently do not believe are material. If any of the risks actually occur, our business, financial condition, and results of operations could be adversely affected. In that event, the market price of our Class A common stock could decline, and you could lose part or all of your investment.

Risk Factor Summary

The material risks that may affect our business, financial condition or results of operations include, but are not limited to, those relating to the following:

Risks Related to the Proposed Merger

- The announcement and pendency of our agreement to be acquired by affiliates of Thoma Bravo may have an adverse effect on our business and results of operations and our failure to complete the Merger could have an adverse effect on our business, financial condition, results of operations and stock price.
- While the Merger is pending, we are subject to business uncertainties and contractual restrictions that could harm our business relationships, financial condition, results of operations, and business.

- Litigation has been filed in connection with the Merger and further litigation may arise, which could be costly, prevent consummation of the Merger, divert management's attention and otherwise harm our business.

Risks Related to Our Business and Industry

- We have a history of losses, and we expect to incur losses for the foreseeable future.
- We may not continue to grow on pace with historical rates.
- We face intense competition, especially from larger, well-established companies, and we may lack sufficient financial or other resources to maintain or improve our competitive position.
- If we fail to manage our growth effectively, we may be unable to execute our business plan, maintain high levels of service and customer satisfaction or adequately address competitive challenges.
- We have a limited operating history, which makes it difficult to predict our future results of operations.
- If we fail to innovate in response to rapid technological change, evolving industry standards, and changing customer needs, requirements or preferences, our business, financial condition, and results of operations could be adversely affected.
- If we are unable to efficiently acquire new customers, retain our existing customers or expand the level of adoption of our platform with our customers, our business, financial condition, and results of operations could be adversely affected.
- Our quarterly and annual results are likely to fluctuate and as a result may adversely affect the trading price of our common stock.
- If our solutions have or are perceived to have defects, errors, or vulnerabilities, or if we otherwise fail or are perceived to fail to provide secure and frictionless user experiences, our brand and reputation could be harmed, which could adversely affect our business, financial condition, and results of operations.
- If we or our third-party service providers experience a security breach or incident that allows, or is perceived to allow, unauthorized access to our platform or our customers' data, our reputation, business, financial condition, and results of operations could be adversely affected.

Risks Related to Our Dependence on Third Parties

- If we are unable to build and maintain successful relationships with our partners, our business, financial condition and results of operations could be adversely affected.
- Defects in or the loss of access to software or services from third parties could increase our costs and adversely affect the quality of our platform.
- Certain estimates and information that we refer to publicly are based on information from third-party sources and we do not independently verify the accuracy or completeness of the data contained in such sources or the methodologies for collecting such data, and any real or perceived inaccuracies in such estimates and information may harm our reputation and adversely affect our business.

Risks Related to Our Intellectual Property

- We use open source software in our platform and offerings, which could negatively affect our ability to offer our platform and expose us to litigation or other actions.
- If we fail to adequately obtain, maintain, defend, protect, or enforce our intellectual property or proprietary rights, our competitive position could be impaired and we may lose valuable assets, generate less revenue, and incur costly litigation.
- If we cannot license rights to use technologies on reasonable terms, we may not be able to commercialize new products in the future.
- If we are subject to a claim that we infringe, misappropriate, or otherwise violate a third party's intellectual property rights, our business, financial condition or results of operations could be adversely affected.

Risks Related to Our Legal and Regulatory Environment

- Our business is subject to a wide range of laws and regulations, many of which are evolving, and failure to comply with such laws and regulations could harm our business, financial condition and results of operations.
- We are subject to stringent laws, rules, and regulations regarding privacy, data protection and information security. Any actual or perceived failure by us to comply with such laws, rules, and regulations, the privacy or security provisions of our privacy policy, our contracts or other legal or regulatory requirements could result in proceedings, actions, or penalties against us and materially adversely affect our business.

Risks Related to Ownership of Our Class A Common Stock

- The dual-class structure of our common stock has the effect of concentrating voting control with those stockholders who held our capital stock (or options or other securities convertible into or exercisable for our capital stock) prior to the completion of our initial public offering, which will limit your ability to influence the outcome of important transactions, including a change in control.

Risks Related to the Proposed Merger

The announcement and pendency of our agreement to be acquired by affiliates of Thoma Bravo may have an adverse effect on our business and results of operations and our failure to complete the Merger could have an adverse effect on our business, financial condition, results of operations and stock price.

On October 10, 2022, ForgeRock entered into the Merger Agreement with Parent and Merger Sub. Completion of the Merger remains subject to the satisfaction of certain terms and conditions set forth in the Merger Agreement, including (i) the absence of any order issued by any governmental entity of competent jurisdiction or any law applicable to the merger that, in each case, prevents, materially restrains, or materially impairs the consummation of the Merger; and (ii) the expiration or termination of the waiting period applicable to the Merger pursuant to the HSR Act, and the absence of any agreement with any governmental authority not to consummate the Merger. On December 22, 2022, ForgeRock and Parent each received a Second Request from the DOJ in connection with the DOJ's review of the Merger. The issuance of the Second Request extends the waiting period under the HSR Act until 30 days after both ForgeRock and Parent have substantially complied with the Second Request. On January 12, 2023, we received approval of the Merger Agreement by the affirmative vote of ForgeRock's stockholders holding a majority of the outstanding voting power of ForgeRock's common stock. ForgeRock and entities affiliated with Thoma Bravo have entered into the Timing Agreement with the DOJ in connection with the Merger and the Second Request. Under the Timing Agreement, ForgeRock and Thoma Bravo have agreed that they will certify compliance with the Second Request no earlier than May 1, 2023, and will not consummate the Merger less than 75 days after compliance with the Second Request. The Timing Agreement does not prevent ForgeRock and Thoma Bravo from consummating the Merger sooner if the DOJ closes its investigation of the Merger before that date. The expiration or termination of the waiting period applicable to the Merger pursuant to the HSR Act (and the absence of any agreement with any governmental authority not to consummate the Merger) is the only remaining approval or regulatory condition required to consummate the closing of the Merger under the Merger Agreement. There is no assurance that the remaining conditions to closing the Merger, including the expiration or termination of the waiting period applicable to the Merger pursuant to the HSR Act, will be satisfied before the Termination Date or at all, or that the Merger will be completed on the proposed terms, within the expected timeframe, or at all.

The Merger may be delayed, and may ultimately not be completed, due to a number of factors, including:

- the failure to obtain the expiration or termination of the waiting period applicable to the Merger pursuant to the HSR Act, or any other regulatory approval, clearance or condition that may become applicable to the Merger, before the Termination Date or at all;
- potential future stockholder litigation and other legal and regulatory proceedings, including litigation by the DOJ seeking to block the completion of the Merger, which could prevent, materially restrain, or materially impair the consummation of the Merger;
- the failure of any remaining closing condition to be satisfied before the Termination Date, after which time either ForgeRock or Parent may be entitled to terminate the Merger Agreement; and
- the failure to satisfy any other conditions to the completion of the Merger, including the possibility that a Company material adverse effect would permit Parent not to close the Merger.

If the Merger does not close, we may suffer other consequences that could adversely affect our business, financial condition, results of operations, and stock price, and our stockholders would be exposed to additional risks, including:

- to the extent that the current market price of our stock reflects an assumption that the Merger will be completed, the market price of our Class A common stock could decrease if the Merger is not completed;
- investor confidence in us could decline, stockholder litigation could be brought against us, relationships with existing and prospective customers, service providers, investors, lenders and other business partners may be adversely impacted, we may be unable to retain key personnel, and our operating results may be adversely impacted due to costs incurred in connection with the Merger;
- any disruptions to our business resulting from the announcement and pendency of the Merger, including adverse changes in our relationships with customers, suppliers, partners and employees, may continue or intensify in the event the Merger is not consummated or is significantly delayed;
- the risks related to the diversion of attention of ForgeRock management or employees during the pendency of the Merger; and
- the requirement that we pay Parent a termination fee under certain circumstances that give rise to the termination of the Merger Agreement.

There can be no assurance that our business, relationships with other parties, liquidity or financial condition will not be adversely affected, as compared to the condition prior to the announcement of the Merger, if the Merger is not consummated. Even if successfully completed, there are certain risks to our stockholders from the Merger, including:

- we may experience a departure of employees, prior to the closing of the Merger;
- the amount of cash to be paid under the Merger Agreement is fixed and will not be adjusted for changes in our business, assets, liabilities, prospects, outlook, financial condition or operating;
- results or in the event of any change in the market price of, analyst estimates of, or projections relating to, our Class A common stock;
- receipt of the all-cash per share merger consideration under the Merger Agreement is taxable to stockholders that are treated as U.S. holders for U.S. federal income tax purposes; and
- if the Merger is completed, our stockholders will forego the opportunity to realize the potential long-term value of the successful execution of our current strategy as an independent company.

While the Merger is pending, we are subject to business uncertainties and contractual restrictions that could harm our business relationships, financial condition, results of operations, and business.

During the period prior to the closing of the Merger and pursuant to the terms of the Merger Agreement, our business is exposed to certain inherent risks and contractual restrictions that could harm our business relationships, financial condition, results of operations, and business, including:

- potential uncertainty in the marketplace, which could lead current and prospective customers to purchase products and services from other providers or delay purchasing from us;
- difficulties maintaining existing and/or establishing business relationships, including business relationships with significant customers, suppliers and partners;
- the possibility of disruption to our business and operations resulting from the announcement and pendency of the Merger, including diversion of management attention and resources;
- the inability to attract and retain key personnel and recruit prospective employees, and the possibility that our current employees could be distracted, and their productivity decline as a result, due to uncertainty regarding the Merger;
- the inability to pursue alternative business opportunities or make changes to our business pending the completion of the Merger, and other restrictions on our ability to conduct our business;
- our inability to freely issue securities, incur certain indebtedness, declare or authorize any dividend or distribution, or make certain material capital expenditures without Parent's approval;
- our inability to solicit other acquisition proposals during the pendency of the Merger;

- the amount of the costs, fees, expenses and charges related to the Merger Agreement and the Merger, including but not limited to the cost of professional services, insurance and any legal proceeding that may be instituted against us, which may materially and adversely affect our financial condition; and
- other developments beyond our control, including, but not limited to, changes in domestic or global economic conditions that may affect the timing or success of the Merger.

If any of these effects were to occur, it could adversely impact our business, cash flow, results of operations or financial condition, as well as the market price of our common stock and our perceived value, regardless of whether the Merger is completed.

Litigation has been filed in connection with the Merger and further litigation may arise, which could be costly, prevent consummation of the Merger, divert management's attention and otherwise harm our business.

Regardless of the outcome of any litigation or future litigation related to the Merger, such litigation may be time-consuming and expensive and may distract our management from running the day-to-day operations of our business. The litigation costs and diversion of management's attention and resources to address the claims and counterclaims in any litigation related to the Merger may adversely affect our business, results of operations, prospects, and financial condition. If the Merger is not consummated for any reason, litigation could be filed in connection with the failure to consummate the Merger. Any litigation related to the Merger may result in negative publicity or an unfavorable impression of us, which could adversely affect the price of our Class A common stock, impair our ability to recruit or retain employees, damage our relationships with our customers, suppliers, and other business partners, or otherwise harm our operations and financial performance. For more information, see the section titled "Legal Proceedings" below.

Risks Related to Our Business and Industry

We have a history of losses, and we expect to incur losses in the future.

We have incurred net losses in each year since our inception. As of December 31, 2022 and 2021, we had an accumulated deficit of \$330.1 million and \$263.8 million, respectively. We expect to continue to incur net losses in the future. Because the market for our platform is rapidly evolving and has not yet reached widespread adoption, it is difficult for us to predict our future results of operations. We expect our operating expenses to continue to increase over the next several years as we hire additional personnel, particularly in sales and marketing, expand and improve the effectiveness of our distribution channels, expand our operations and infrastructure, both domestically and internationally, pursue business combinations and continue to develop our platform. As we operate as a public company and transition back to a private company, we may incur additional legal, accounting, and other expenses that we did not incur historically. If our revenue does not increase to offset these increases in our operating expenses, we will not be profitable in future periods. Any failure by us to achieve or sustain profitability on a consistent basis could cause the value of our common stock to decline.

We may not continue to grow on pace with historical rates.

We have experienced rapid growth historically, and we may not be able to sustain such growth rates. Thus, you should not rely on our key business metrics or results of operations for any previous quarterly or annual period (or the growth rate relating to such metrics or results) as any indication of future periods. In particular, our revenue growth rate and ARR has fluctuated in prior periods. We expect our revenue growth rate to continue to fluctuate over the short term. In future periods, our revenue growth and ARR could slow or our revenue could decline for a number of reasons, including slowing demand for or adoption of our platform and offerings, increasing competition, any failure to gain or retain customers or partners, a decrease in the growth of our overall market, changes to technology, or our failure, for any reason, to continue to capitalize on growth opportunities. In addition, our revenue growth rate and ARR may experience increased volatility due to global societal and macroeconomic conditions (e.g., economic uncertainties or downturns, health epidemics and other outbreaks, such as COVID-19, inflationary pressures, supply chain disruptions, the military conflict in Ukraine and related sanctions against Russia and Belarus, higher interest rates and strength of the U.S. dollar relative to other currencies). As a result, our past financial performance should not be considered indicative of our future performance. If our revenue growth rate and ARR declines, investors' perceptions of our business and the market price of our Class A common stock could be adversely affected. Additionally, our ARR does not adjust for the timing impact of revenue recognition for specific performance obligations identified within a contract. Therefore, our ARR growth in any given period may not result in a similar growth rate for revenue. Our revenue is also affected by the overall growth in our business and changes in our revenue mix of self-managed subscriptions and SaaS subscriptions. As a result, our year-over-year growth rates for total revenue may not be comparable due to changes in our revenue mix.

We face intense competition, especially from larger, well-established companies, and we may lack sufficient financial or other resources to maintain or improve our competitive position.

The identity and access management market is intensely competitive, and we expect competition to increase in the future from established competitors and new market entrants. We face competition from (1) legacy providers such as CA Technologies, IBM and Oracle, (2) cloud-only providers such as Okta, (3) companies that provide a subset of functionality across identity, access and governance such as Okta, Ping Identity (acquisition completed by affiliates of Thoma Bravo in October 2022), and SailPoint (acquisition completed by affiliates of Thoma Bravo in August 2022), and (4) homegrown solutions that are designed to solve a limited identity use case. We also compete with other companies that offer a broad array of IT solutions that compete in our market.

With the continued increase in merger and acquisition transactions in the technology industry, particularly transactions involving cloud-based technologies, there is a significant likelihood that we will compete with other large technology companies in the future. For example, other technology companies could acquire or develop an identity and access management or digital identity platform that competes directly with our platform. These companies have significant name recognition, considerable resources and existing IT infrastructures and powerful economies of scale and scope, which allow them to rapidly develop and deploy new solutions. Many of our existing competitors have, and some of our potential competitors could have, substantial competitive advantages such as greater name recognition and brand awareness, longer operating histories, larger customer bases, larger sales and marketing budgets and resources, broader distribution and established relationships with partners and customers, greater professional services and customer support resources, greater resources to make acquisitions and enter into strategic partnerships, lower labor and research and development costs, larger and more mature intellectual property portfolios and substantially greater financial, technical and other resources. Certain of our competitors may also have greater ease of implementation of their products with customers in our market, as well as flexibility, scale, and breadth of integration points.

In addition, some of our larger competitors have substantially broader product offerings and leverage their relationships based on other products they offer or incorporate functionality into existing products to gain business in a manner that discourages users from purchasing our offerings, including through selling at zero or negative margins, product bundling or closed technology platforms. Potential customers may also prefer to purchase from their existing suppliers rather than a new supplier regardless of product performance or features. Our larger competitors often have broader product lines and market focus and are less susceptible to downturns in a particular market. Our competitors may also seek to repurpose their existing offerings to provide identity solutions with subscription models. Conditions in our market could change rapidly and significantly as a result of technological advancements, partnering by our competitors or continuing market consolidation. Further, industry trends, such as the migration to cloud and the transition to Zero Trust, could give competitors an advantage in the market if they are better positioned to address such industry trends. Additionally, start-up companies that innovate and large competitors that are making significant investments in research and development may invent similar or superior products and technologies that compete with our solutions or solution packages.

Consolidation in the markets in which we compete may affect our competitive position. This is particularly true in circumstances where customers are seeking to obtain a broader set of solutions and services than we are currently able to provide. In addition, some of our competitors may enter into new alliances with each other or may establish or strengthen cooperative relationships with system integrators, third-party consulting firms, or other parties. Any such consolidation, acquisition, alliance, or cooperative relationship could lead to pricing pressure and loss of our market share and could result in a competitor with greater financial, technical, marketing, service, and other resources, all of which could harm our ability to compete. Furthermore, organizations may be more willing to incrementally add solutions to their existing infrastructure from competitors than to replace their existing infrastructure with our offerings. Any failure to meet and address the foregoing could adversely affect our business, financial condition, and results of operations.

If we fail to manage our growth effectively, we may be unable to execute our business plan, maintain high levels of service and customer satisfaction, or adequately address competitive challenges.

We have experienced, and may continue to experience, rapid growth and organizational change, which has placed, and may continue to place, significant demands on our management and our operational and financial resources. Our ability to manage our growth effectively and to integrate new employees and technologies into our existing business will require us to continue to expand our operational and financial infrastructure and to continue to effectively integrate, develop, and motivate a large number of employees (new or existing), while maintaining the beneficial aspects of our culture.

Continued growth could challenge our ability to develop and improve our operational, financial, and management controls, enhance our reporting systems and procedures, recruit, train, and retain highly skilled personnel, and maintain customer satisfaction. In addition, we have encountered and will continue to encounter risks and challenges frequently experienced by growing companies in evolving industries, including market acceptance of our platform and offerings, intense competition, and our ability to manage our costs and operating expenses. We must continue to improve and expand our IT and financial infrastructure, operating, and administrative systems and relationships with various partners and other third parties. Additionally, we have international operations in but not limited to Canada, France, Germany, Norway, the United Kingdom, Australia, New Zealand, and Singapore, and we may continue to expand our international operations in these jurisdictions or other countries in the future. Our expansion has placed, and our expected future growth will continue to place, a significant strain on our managerial, research and development, sales and marketing, administrative, financial, and other resources. If we are unable to manage our continued growth successfully, our business, financial condition, and results of operations could suffer. In addition, as we expand our business, it is important that we continue to maintain a high level of customer service and satisfaction. As our customer base continues to grow, we will need to expand our account management, customer service, and other personnel, and our network of partners, to provide personalized account management and customer service. If we are not able to continue to provide high levels of customer service, our reputation, as well as our business, financial condition, and results of operations could be adversely affected.

We have a limited operating history, which makes it difficult to predict our future results of operations.

We were formed in 2009 and we have since frequently expanded our platform features and offerings and evolved our pricing methodologies. Our limited operating history and evolving business make it difficult to evaluate our future prospects and the risks and challenges we may encounter. These risks and challenges include our ability to:

- accurately forecast our revenue and plan our expenses;
- increase the number of new customers and retain and expand relationships with existing customers;
- successfully introduce new offerings and services;
- successfully compete with current and future competitors;
- successfully expand our business in existing markets and enter new markets and geographies;
- anticipate and respond to macroeconomic and technological changes and changes in the markets in which we operate;
- maintain and enhance the value of our reputation and brand;
- maintain and expand our relationships with partners;
- successfully execute on our sales and marketing strategies;
- adapt to rapidly evolving trends in the ways consumers interact with technology;
- hire, integrate, and retain talented technology, sales, customer service, and other personnel; and
- effectively manage rapid growth in our personnel and operations.

If we fail to address the risks and difficulties that we face, including those associated with the challenges listed above as well as those described elsewhere in this “Risk Factors” section, our business, financial condition, and results of operations could be adversely affected. Further, because we have limited historical financial data and operate in a rapidly evolving market, 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. We have encountered in the past, and will encounter in the future, risks and uncertainties frequently experienced by growing companies with limited operating histories in rapidly changing industries. If our assumptions regarding these risks and uncertainties, which we use to plan and operate our business, are incorrect or change, or if we do not address these risks successfully, our results of operations could differ materially from our expectations and our business, financial condition, and results of operations could be adversely affected. Additionally, we recently launched our SaaS offering, and it is in the early stages of customer adoption. Our SaaS offering may prove to be difficult to scale, or encounter other difficulties and such difficulties could cause our results of operations to differ materially from our expectations and our business, financial condition, and results of operations could be adversely affected.

If we fail to innovate in response to rapid technological change, evolving industry standards, and changing customer needs, requirements, or preferences, our business, financial condition, and results of operations could be adversely affected.

The identity and access management market is characterized by rapid technological change, evolving industry standards, and changing regulations, as well as changing customer needs, requirements and preferences. The success of our business will depend, in part, on our ability to anticipate, adapt, and respond effectively to these changes on a timely and cost-effective basis. In addition, as our customers' technologies and business plans grow more complex, we expect them to face new and increasing challenges. Our customers require that our platform effectively identify and respond to these challenges without disrupting the performance of our customers' IT systems or interrupting their business operations. As a result, we must continually modify and improve our offerings in response to changes in our customers' IT infrastructures and operational needs or end-user preferences. The success of any enhancement to our existing offerings or the deployment of new offerings depends on several factors, including the timely completion and market acceptance of our enhancements or new offerings. Any enhancement to our existing offerings or new offerings that we develop and introduce involves significant commitment of time and resources and is subject to a number of risks and challenges including:

- ensuring the timely release of new offerings, features and platform enhancements;
- adapting to emerging and evolving industry standards, technological developments by our competitors and customers, and changing regulatory requirements;
- interoperating effectively with existing or newly-introduced technologies, systems, or applications of our existing and prospective customers;
- resolving defects, errors, or failures in our platform or offering(s);
- extending the operation of our offerings and services to new and evolving platforms, operating systems, and hardware products, such as mobile and IoT devices; and
- managing new offerings, features, and service strategies for the markets in which we operate.

If we are not successful in managing these risks and challenges, or if our new offerings, platform upgrades and services are not competitive or do not achieve market acceptance, our business, financial condition, and results of operations could be adversely affected.

If we are unable to efficiently acquire new customers, retain our existing customers, or expand the level of adoption of our platform with our customers, our business, financial condition, and results of operations could be adversely affected.

To continue to grow our business, it is important that we continue to acquire new customers. Our success in adding new customers depends on numerous factors, including our ability to (1) offer a compelling identity and access management platform and effective offerings, (2) execute our sales and marketing strategy, (3) attract, effectively train and retain new sales, marketing, professional services and support personnel, (4) develop or expand relationships with partners, (5) expand into new geographies and vertical markets, (6) deploy our platform or offerings for new customers, (7) provide quality customer support once deployed, (8) effectively manage and forecast our customer count, and (9) expand our use cases for our existing customers.

It is important to our continued growth that we retain our existing customers. Our customers have no obligation to renew their subscription agreements, and our customers may decide not to renew these agreements with a similar contract period, at the same prices and terms or with the same or a greater number of identities, or at all. Our customer retention or our customers' use of our platform and services may decline or fluctuate as a result of a number of factors, including our customers' satisfaction with our platform and offerings, our customer support and professional services, our prices and pricing plans, the competitiveness of other identity and access management offerings and services, reductions in our customers' spending levels, user adoption of our platform and offerings, deployment success, utilization rates by our customers, new releases, and changes to our platform or offerings. Additionally, new consolidations, acquisitions, alliances or cooperative relationships involving one or more of our customers may lead such customers not to renew their existing subscriptions with us.

Our ability to increase revenue also depends in part on our ability to increase the number of identities managed by our platform and sell more use cases or offerings to our existing and new customers. Our ability to increase sales to existing customers depends on several factors, including their experience with implementing our offerings and using our platform and the existing offerings they have implemented, their ability to integrate our offerings with existing technologies and our pricing model. As we expand our market reach, we may experience difficulties in gaining traction and raising awareness among potential customers regarding the critical role that our offerings play in securing their businesses and we may face more competitive pressure in such markets. Additionally, our existing customers may delay or fail to pay us under our commercial agreements. Our Net Retention Rate may fluctuate from period to period and is dependent upon new ARR and renewals from existing customers, of which new ARR is impacted by the mix of new ARR from existing and new customers in any given period. We cannot accurately predict our renewals and Net Retention Rate given the diversity of our customer base, the size of our industry, and geography. Our renewals and Net Retention Rate may decline or fluctuate as a result of a number of factors, many of which are outside our control, including the business strength or weakness of our customers, customer usage, the ability of our customers to quickly integrate our products into their businesses, the ability of our customers to continually find new uses for our products within their businesses, and customer satisfaction with our products, platform capabilities, and customer support.

If we are unable to successfully acquire new customers, retain our existing customers or expand sales to existing customers, our business, financial condition, and results of operations could be adversely affected.

Our results of operations are likely to fluctuate and as a result may adversely affect the trading price of our Class A common stock.

Our quarterly and annual results of operations, including our key business metrics, are likely to vary significantly in the future, and period-to-period comparisons of our results of operations may not be meaningful. Accordingly, the results for any one quarter are not necessarily an accurate indication of future performance. Our financial results may fluctuate due to a variety of factors, many of which are outside of our control. Factors that may cause fluctuations in our financial results include:

- the Merger, the pendency of the Merger, or the failure to complete the Merger;
- the mix of revenue attributable to our various offerings, in particular, our SaaS and subscription offerings;
- the length of our sales cycles;
- the weighted average duration of our contracts in any given period;
- the mix of revenue attributable to larger transactions as opposed to smaller transactions, and the associated volatility and timing of our transactions;
- the level of demand for our platform;
- our ability to attract new customers, obtain renewals from existing customers, and upsell or otherwise increase our customers' use of our platform;
- the timing and success of new product introductions by us or our competitors or any other change in the competitive landscape of our market;
- pricing pressure as a result of competition or otherwise;
- seasonal buying patterns for IT spending;
- changes in Remaining Performance Obligations, due to seasonality, the timing of and compounding effects of renewals, invoice duration, size and timing, new business linearity between quarters and within a quarter or average contract term, all of which may impact implied growth rates;
- errors in our forecasting of the demand for our offerings, which could lead to lower than projected revenue, increased costs or both;
- increases in and timing of sales and marketing and other operating expenses that we may incur to grow and expand our operations and to remain competitive;
- security breaches or incidents impacting, technical difficulties with or interruptions to, the delivery and use of our platform and offerings;
- our ability to comply with laws, rules, regulations, industry standards, contractual obligations, and other legal requirements relating to privacy, data protection and information security, including the GDPR, and the California Consumer Privacy Act, or the CCPA;

- costs related to the acquisition of businesses, talent, technologies, or intellectual property, including potentially significant amortization costs and possible write-downs;
- our ability to effectively obtain, maintain, protect, defend, and enforce our intellectual property rights;
- credit, liquidity, financial or other difficulties confronting our channel partners;
- adverse litigation judgments, settlements of litigation and other disputes or other litigation-related or dispute-related costs;
- the impact of new accounting pronouncements and associated system implementations;
- changes in the legislative or regulatory environment;
- fluctuations in foreign currency exchange rates;
- expenses related to real estate, including our office leases, and other fixed expenses; and
- general economic conditions in domestic or international markets, including the economic impact of inflation, supply chain disruptions, competition, health epidemics and other outbreaks, such as COVID-19, and other geopolitical uncertainty and instability, such as the military conflict in Ukraine and related sanctions against Russia and Belarus, resulting sanctions imposed by the U.S. and other countries, and retaliatory actions taken by Russia in response to such sanctions.

Any one or more of the factors above may result in significant fluctuations in our results of operations. In addition, we generally experience seasonality based on when we enter into agreements with customers, which has historically been the most frequent in our fourth quarter, and our quarterly results of operations generally fluctuate from quarter-to-quarter depending on customer purchasing habits. This seasonality is reflected to a much lesser extent, and sometimes is not immediately apparent, in our revenue, due to the fact that we recognize subscription revenue over the term of the subscription. We expect that seasonality will continue to affect our results of operations in the future and may reduce our ability to predict cash flow and optimize the timing of our operating expenses.

The variability and unpredictability of our quarterly results of operations or key business metrics could result in our failure to meet our expectations or those of securities analysts or investors. If we fail to meet or exceed such expectations for these or any other reasons, the market price of our common stock could decline, and we could face costly lawsuits, including securities class action suits.

If our solutions have or are perceived to have defects, errors, or vulnerabilities, or if we otherwise fail or are perceived to fail to provide secure and frictionless user experiences, our brand and reputation could be harmed, which could adversely affect our business, financial condition, and results of operations.

Real or perceived defects, errors, or vulnerabilities in our software, the failure of our solution to secure digital identities, including any stored or transmitted data and integrated applications, services, and APIs, the failure to protect against advanced or newly developed exploits or discovered vulnerabilities, misconfiguration of our solutions, or the failure of customers to take action on attacks could harm our reputation and adversely affect our business, financial condition, and results of operations. Because our platform is complex, it may contain defects or errors that are not detected until after deployment. We cannot assure you that our products will protect against all security vulnerabilities, exploits, or cyberattacks, especially in light of the rapidly changing cybersecurity landscape that our offerings seek to address. Due to a variety of both internal and external factors, including, without limitation, defects or misconfigurations of our solutions, our offerings could become vulnerable to security incidents that cause them to fail to secure identities, to protect against vulnerabilities and exploits, to secure data that is stored or transmitted, and to secure integrated applications, services, and APIs. In addition, due to a variety of both internal and external factors, including real or perceived defects, errors, vulnerabilities, or misconfiguration in our software, our solutions may fail to deliver a frictionless experience or may significantly or negatively degrade the end user experience which could lead to customer and end user dissatisfaction that could harm our reputation and adversely affect our business, financial condition, and results of operations.

Moreover, as our platform is adopted by an increasing number of enterprises and governmental entities, it is possible that the individuals and organizations behind advanced cyberattacks will begin to focus on finding ways to defeat our platform. If this happens, our customers could be specifically targeted by attackers, which could result in vulnerabilities in our platform or undermine the market acceptance of our platform or solutions or our reputation as a provider of identity and access management solutions.

Companies are increasingly subject to a wide variety of attacks on their systems and networks on an ongoing basis. In addition to threats from traditional computer “hackers,” malicious code (such as malware, viruses, worms and ransomware), employee or contractor theft, fraud, misconduct or misuse, password spraying, phishing, social engineering attacks and denial-of-service attacks, we and our third-party service providers now also face threats from sophisticated nation-state and nation-state supported actors who engage in attacks (including advanced persistent threat intrusions) that add to the risks to our systems (including those hosted on GCP or other cloud services), internal networks, our customers’ systems, and the information that they store and process. Despite our efforts to create security barriers to such threats, it is virtually impossible for us to entirely mitigate these risks, in particular, as the frequency and sophistication of cyberattacks increases. For example, the risks of cyberattacks may be increased in connection with Russia’s activities in Ukraine. If any of our customers experiences a cyberattack while using our platform or offerings, or believes that this has occurred, such customer could be disappointed with our platform, regardless of whether our offerings or services were implicated in failing to prevent such attack. Real or perceived security breaches of, or security incidents impacting, our customers’ networks could cause disruption or damage to their networks or other negative consequences and could result in negative publicity to us, damage to our reputation, and other customer relations issues, and our business, financial condition, and results of operations could be adversely affected.

If we or our third-party service providers experience a data security breach or network incident that allows, or is perceived to allow, unauthorized access to our platform or our customers’ data, our reputation, business, financial condition, and results of operations could be adversely affected.

As a provider of identity and security solutions, we pose a potential attack vector for cyberattacks. The security measures we have integrated into our internal systems and platform, which are designed to detect unauthorized access or activity and prevent or minimize security breaches and incidents, may not function as expected or may not be sufficient to protect our internal networks and platform against certain attacks and other security breaches and incidents. In addition, techniques used to sabotage or to obtain unauthorized access to networks in which data is stored or through which data is transmitted change frequently, become more complex over time and generally are not recognized until launched against a target. As a result, we and our third-party service providers may be unable to anticipate these techniques or implement adequate preventative measures quickly enough to prevent either an electronic intrusion into our systems or services or a compromise of customer data, and we and they may face difficulties or delays in identifying or otherwise responding to any potential security breach or incident. Additionally, our remediation efforts and other response to any potential security breach or incident may not be successful or timely. The military conflict in Ukraine may create additional risks of cyberattacks, and of security breaches and incidents.

Third parties may attempt to fraudulently induce employees, contractors, customers, or our customers’ users into disclosing sensitive information, such as user names, passwords, or other information or otherwise compromise the security of our internal networks, electronic systems, or physical facilities in order to gain access to our data or our customers’ data, which could result in significant legal and financial exposure, a loss of confidence in the security of our platform, interruptions, or malfunctions in our operations, account lock outs, and, ultimately, harm to our business, financial condition, and results of operations. With many of our employees and contractors working remotely, the risks of these types of compromise, and certain other security risks, may be heightened.

Our customers’ use of ForgeRock to access business systems and store data concerning, among other things, their employees, contractors, partners and customers is essential to their use of our platform, which collects, uses, stores, transmits, and otherwise processes customers’ proprietary information and personal data. If a security breach or incident impacting customer data or systems on our platform were to occur, as a result of third-party action, technology limitations, employee or contractor error, malfeasance or otherwise, and the confidentiality, integrity or availability of our customers’ data or systems was disrupted, or if this was perceived to have occurred, we could face claims, demands, and litigation by, and incur significant liability to our customers and to individuals or businesses whose information was being stored by our customers, could face regulatory or governmental investigations, inquiries, or other proceedings, and our platform may be perceived as less desirable, any of which could negatively affect our business and damage our reputation. Further, and notwithstanding any contractual rights or remedies we may have, because we do not control our third-party service providers, including their security measures and the processing of data by our third-party service providers, we cannot ensure the integrity or security of measures they take to protect customer information and prevent data loss.

In addition, security breaches or incidents impacting our platform, including from ransomware, could result in a risk of loss or unauthorized disclosure or other processing of critical information, including personal data, or the denial of access to or other inability to access this information, which, in turn, could lead to enforcement actions, litigation, regulatory or governmental audits, investigations, inquiries, or other proceedings and possible significant liability, and increased requests by individuals regarding their personal data. Actual or perceived security breaches and incidents could also damage our relationships with and ability to attract customers and partners, and trigger service availability, indemnification, and other contractual obligations. Security breaches and incidents may also cause us to incur significant investigation, mitigation, remediation, notification and other expenses, including necessitating that we put in place additional measures designed to prevent further security breaches or incidents. We may be required to expend significant capital and financial resources to protect against such threats or to alleviate problems caused by security breaches and incidents. Furthermore, as a provider of identity and security solutions, any such breach or incident, including a breach of our customers' systems, could compromise systems secured by our products, creating system disruptions or slowdowns and exploiting security vulnerabilities of our or our customers' systems, and the information stored on our or our customers' systems could be improperly accessed, publicly disclosed, altered, lost, stolen, made unavailable, or otherwise processed, which could result in a loss of intellectual property and subject us to claims, demands, and litigation from private parties, as well as regulatory or governmental investigations and other proceedings, fines, penalties, and other liabilities, harm to our reputation and market position, and financial harm. While we maintain cybersecurity insurance, our insurance may be insufficient to cover all liabilities incurred in these incidents, and any incidents may result in loss of, or increased costs of, our cybersecurity insurance. We also cannot ensure that our existing insurance coverage will continue to be available on acceptable terms or will be available in sufficient amounts to cover one or more large claims related to a security incident or breach, or that the insurer will not deny coverage as to any future claim. The successful assertion of one or more large claims against us that exceed available insurance coverage, or the occurrence of changes in our insurance policies, including premium increases or the imposition of large deductible or co-insurance requirements, could adversely affect our reputation and our business, financial condition, and results of operations. We also cannot ensure that any limitations of liability provisions in our customer agreements, contracts with third-party service providers and other contracts for a security lapse or breach or other security-related matter would be enforceable or adequate or would otherwise protect us from any liabilities or damages with respect to any particular claim.

Any breach or incident, or any perceived breach or incident, of our systems, our customers' systems, or other systems or networks secured by our products, whether or not any such breach or incident is due to a vulnerability in our platform, may also undermine confidence in our platform or our industry and result in damage to our reputation and brand, negative publicity, loss of partners, customers and sales, increased costs to remedy any problem, costly litigation, regulatory or governmental investigations, inquiries, or other proceedings, and other liability. In addition, a breach or violation of the security measures of one of our partners could result in the exfiltration of confidential corporate information or other data that may provide additional avenues of attack, and if a high profile security breach or incident occurs with respect to a comparable identity and access management provider, our customers and potential customers may lose trust in identity and access management providers generally, which could adversely impact our ability to retain existing customers or attract new ones, potentially causing a negative impact on our business. Any of these negative outcomes could negatively impact market acceptance of our platform and our business, financial condition, and results of operations could be adversely affected.

Health epidemics and other outbreaks, such as COVID-19, have harmed and could continue to harm our business, financial condition, and results of operations.

Our business could be adversely impacted by the effects of possible health epidemics and other outbreaks. Such effects may include, for example:

- for certain enterprises, delaying or pausing digital transformation and expansion projects and negatively impacting IT spending, which has caused some potential customers to delay or forgo purchases of subscriptions for our platform and services and some existing customers to fail to renew subscriptions, reduce their usage or fail to expand their usage of our platform;
- restricting our sales operations and marketing efforts, reducing the effectiveness of such efforts in some cases and delaying or lengthening our sales cycles; and
- delaying the delivery of professional services and training to our customers.

Health epidemics and other outbreaks, such as COVID-19, may cause us to experience the foregoing challenges in our business in the future and could have other effects on our business, including disrupting our ability to develop new offerings and enhance existing offerings, market, and sell our products and conduct business activities generally.

We have in the past taken precautionary measures intended to reduce the risk of COVID-19 spreading to our employees, our customers and the communities in which we operate, and we may take similar measures for further health epidemics and other outbreaks as required by government entities or that we determine are in the best interests of our employees, customers, partners, and third-party service providers. In particular, governmental authorities have previously instituted shelter-in-place policies or other restrictions in many jurisdictions in which we operate, including in the San Francisco Bay Area where our headquarters is located, which policies required most of our employees to work remotely. These precautionary measures and policies could negatively impact product innovation and development and employee and organizational productivity, training, and collaboration, or otherwise disrupt our business operations. The further continuation of working remotely may expose us to increased risks of security breaches or incidents. We may need to enhance the security of our platform and offerings, our data, and our internal IT infrastructure, which may require additional resources and may not be successful.

The extent to which health epidemics and other outbreaks, such as COVID-19 may impact our business and results of operations will depend on future developments that are highly uncertain and cannot be predicted. To the extent a health epidemic adversely affects our business, financial condition, and results of operations, it is likely to also have the effect of heightening many of the other risks described in this “Risk Factors” section.

If our platform and offerings fail to help our customers achieve and maintain compliance with certain government regulations and industry standards, our business, financial condition, and results of operations could be adversely affected.

The success of our platform depends, in large part, on its ability to help our customers achieve and maintain compliance with certain industry standards and government regulations, such as the Sarbanes-Oxley Act, HIPAA, the CCPA, the GDPR, and the GLBA, and these types of regulations continue to proliferate globally. These industry standards may change with little or no notice, including changes that could make them more or less onerous for businesses. In addition, governments may also adopt new laws or regulations, or make changes to existing laws or regulations, that could affect whether our customers believe our platform assists them in maintaining compliance with such laws or regulations. If our platform and offerings fail to expedite our customers’ compliance initiatives, our customers may lose confidence in our platform and could switch to products offered by our competitors. In addition, if government regulations and industry standards related to digital identity and security are changed in a manner that makes such regulations and industry standards less onerous, our customers may view compliance as less critical to their businesses, and our customers may be less willing to purchase our platform and offerings. If we are unable to manage the foregoing risks, our business, financial condition, and results of operations could be adversely affected.

We recognize substantially all of our revenue from subscriptions over the term of the relevant subscription period, and as a result, downturns or upturns in sales may not be immediately reflected in our results of operations.

We recognize revenue from the non-license element of subscriptions and support and maintenance ratably over the term of the subscription or support and maintenance agreements with our customers, which is generally one to three years. As a result, a substantial portion of the revenue that we report in each period will be derived from the recognition of deferred revenue relating to agreements entered into in prior periods. Consequently, the full impact of a decline in new sales or renewals in any one period may not be immediately reflected in our results of operations for such period. Accordingly, the effect of significant downturns in sales and market acceptance of and demand for our platform and changes in our rate of renewals may not be fully reflected in our results of operations until future periods.

We also intend to increase our investment in research and development, sales and marketing, and general and administrative functions, and other areas to grow our business. These costs are generally expensed as incurred (with the exception of sales commissions), as compared to a significant portion of our revenue, which is recognized ratably in future periods. We may recognize the costs associated with such increased investments earlier than some of the anticipated benefits and the return on these investments may be lower, or may develop more slowly, than we expect, which could adversely affect our business, financial condition and results of operations.

Our sales cycle is frequently long and unpredictable, and our sales efforts require considerable time and expense.

Since we primarily focus on selling our offerings to enterprises, the timing of our sales can be difficult to predict. We and our partners are often required to spend significant time and resources to better educate and familiarize potential customers with the value proposition of our platform and offerings. Customers often view the purchase of our platform and offerings as a strategic decision and significant investment and, as a result, frequently require considerable time to evaluate, test, and qualify our platform and offerings prior to purchase. In particular, for customers in highly-regulated industries, the selection of a security solution provider is a critical business decision due to the sensitive nature of these customers' data, which results in particularly extensive evaluations prior to the selection of information security vendors. During the sales cycle, we expend significant time and money on sales and marketing and contract negotiation activities, which may not result in a sale. Additional factors that may influence the length and variability of our sales cycle include:

- the discretionary nature of purchasing and budget cycles and decisions;
- lengthy purchasing approval processes;
- the industries in which our customers operate;
- the evaluation of competing solutions and offerings during the purchasing process;
- time, complexity and expense involved in replacing existing solutions;
- announcements or planned introductions of new offerings, features or functionality by our competitors or of new offerings, features or functionality by us; and
- evolving functionality demands.

If our efforts in pursuing sales and customers are unsuccessful, or if our sales cycles lengthen, our revenue could be lower than expected, which would adversely affect our business, financial condition, and results of operations.

Our international operations and continued international expansion subject us to additional costs and risks, which could adversely affect our business, financial condition, and results of operations.

We have historically generated a substantial portion of our revenue outside the United States. Our growth strategy depends, in part, on our continued international expansion. We are continuing to adapt to and develop strategies to address international markets, but there is no guarantee that such efforts will be successful. Additionally, our international sales and operations are subject to a number of risks, including the following:

- unexpected costs and errors in the localization of our platform, including translation into foreign languages and adaptation for local practices and regulatory requirements;
- lack of familiarity and burdens of complying with foreign laws, legal standards, privacy standards, regulatory requirements, tariffs, and other barriers;
- laws and business practices favoring local competitors or commercial parties;
- costs and liabilities related to compliance with foreign data privacy, protection and security laws, rules, regulations, standards and enforcement, including the GDPR;
- fluctuations in exchange rates that may increase the volatility of our foreign-based revenue and expense;
- risk that our foreign employees or partners will fail to comply with U.S. and foreign laws;
- practical difficulties of obtaining, maintaining, defending, protecting, and enforcing intellectual property rights in countries with fluctuating laws and standards and reduced or varied protection for intellectual property rights in some countries;
- restrictive governmental actions focusing on cross-border trade, including taxes, trade laws, tariffs, import and export restrictions, controls, or quotas, barriers, sanctions, custom duties, or other trade restrictions;
- unexpected changes in legal and regulatory requirements;
- difficulties in managing partners;
- differing technology standards;
- longer accounts receivable payment cycles and difficulties in collecting accounts receivable;
- difficulties in managing and staffing international operations, including compliance with differing employer-employee relationships and local employment laws;

- political, economic and social instability, war (including the military conflict in Ukraine, resulting sanctions imposed by the U.S. and other countries and retaliatory actions taken by Russia in response to such sanctions), armed conflict, or terrorist activities;
- health pandemics or epidemics, such as COVID-19, influenza, and other highly communicable diseases or viruses; and
- potentially adverse tax consequences, including the complexities of foreign value added tax (or other tax) systems, and restrictions on the repatriation of earnings.

Operating in international markets also requires significant management attention and financial resources. We cannot be certain that the investment and additional resources required in establishing operations in other countries will produce desired levels of revenue or profitability. Any of the foregoing factors could harm our ability to generate revenue outside of the United States and, consequently, adversely affect our business, financial condition, and results of operations.

Some of our business partners also have international operations and are subject to the risks described above. Even if we are able to successfully manage the risks of international operations, our business may be adversely affected if our business partners are not able to successfully manage these risks.

We may face exposure to foreign currency exchange rate fluctuations.

A substantial portion of our international customer contracts are denominated in local currencies. In addition, the majority of our international costs are denominated in local currencies. As a result, fluctuations in the value of the U.S. Dollar and foreign currencies may affect our results of operations when translated into U.S. Dollars. We do not currently engage in currency hedging activities to limit the risk of exchange rate fluctuations. However, in the future, we may use derivative instruments, such as foreign currency forward and option contracts, to hedge certain exposures to fluctuations in foreign currency exchange rates. The use of such hedging activities may not offset any or more than a portion of the adverse financial effects of unfavorable movements in foreign exchange rates over the limited time the hedges are in place. Moreover, the use of hedging instruments may introduce additional risks if we are unable to structure effective hedges with such instruments.

If we fail to offer high-quality customer support, our business and reputation will suffer.

Once our platform is deployed, our customers rely on our support services to resolve any issues that may arise. High-quality customer education and customer support is important for the successful marketing and sale of our platform and offerings and for the renewal of existing customers. We must successfully assist our customers in deploying our platform and offerings, resolving performance issues, and addressing interoperability challenges with a customer's existing network and security infrastructure. Many enterprises, particularly large enterprises, have complex networks, and require high levels of focused support, including premium support offerings, to fully realize the benefits of our platform. Any failure by us to maintain the expected level of support could reduce customer satisfaction and hurt our customer retention, particularly with respect to our large enterprise customers. To the extent that we are unsuccessful in hiring, training and retaining adequate support resources, our ability to provide adequate and timely support to our customers will be negatively impacted, and our customers' satisfaction with our platform could be adversely affected.

Given our growth, we may in the future engage third parties to provide support services to our customers. Any failure to properly train or oversee such contractors could result in a poor customer experience, which could have an adverse impact on our reputation and ability to renew subscriptions or engage new customers. In addition, some of our contracts with our larger customers require consent in the event we subcontract the services we provide thereunder. The process of obtaining consent to subcontract support services with these customers could be lengthy and there can be no assurance such consent would be provided.

Furthermore, as we sell our platform and offerings internationally, our support organization faces additional challenges, including those associated with delivering support, training and documentation in languages other than English. Any failure to maintain high-quality customer support, or a market perception that we do not maintain high-quality support, could adversely affect our reputation, business, financial condition, and results of operations, and adversely impact our ability to sell our platform or offerings to existing and prospective customers. The importance of high-quality customer support will increase as we expand our business and pursue new customers.

If we do not set optimal prices for our platform and offerings, our business, financial condition, and results of operations could be adversely affected.

In the past, we have at times adjusted our prices either for individual customers in connection with long-term agreements or for a particular offering. We expect that we may need to change our pricing in future periods. Further, as competitors introduce new products that compete with ours or reduce their prices, we may be unable to attract new customers or retain existing customers based on our historical pricing. As we expand internationally, we also must determine the appropriate price to enable us to compete effectively in each respective geographic region. In addition, if our mix of offerings changes, then we may need to, or choose to, revise our pricing model. If we do not optimally price our platform and offerings and manage risks related to changing our prices or pricing model, our business, financial condition, and results of operations could be adversely affected.

If we are unable to manage the costs associated with our professional services, our results of operations could be adversely affected.

We offer professional services associated with implementing our platform and training customers on the use of our platform, and our revenue from professional services carries a negative gross margin compared to our subscription revenue. We price our professional services to be attractive to customers because we believe that our professional services help achieve customer success on our platform, which assists us in retaining customers and expanding our relationships with them. If we are unable to manage and improve the margin associated with our professional services, our business, financial condition, and results of operations could be adversely affected.

If our platform or offerings do not effectively interoperate with our customers' existing or future IT infrastructures, our business would be harmed.

Our success depends in part on the interoperability of our platform or offerings with our customers' IT infrastructures, including third-party operating systems, applications, data and devices that we have not developed and do not control. Third-party products and services are constantly evolving, and we may not be able to modify our offerings to ensure their compatibility with those of other third parties following development changes. Any changes in such infrastructure, operating systems, applications, data or devices that degrade the functionality of our platform or offerings or give preferential treatment to competitive solutions could adversely affect the adoption and usage of our platform. We may not be successful in quickly or cost effectively adapting our platform or offerings to operate effectively with these operating systems, applications, data, or devices. If it is difficult for our customers to access and use our platform or offerings, or if our platform or offerings cannot connect a broadening range of applications, data and devices, then our customer growth and retention may be harmed, and our business, financial condition, and results of operations could be adversely affected. We rely on open standards for many integrations between our platform and third-party applications that our customers utilize, and in other instances on such third parties making available the necessary tools for us to create interoperability with their applications. If application providers were to move away from open standards, or if a critical, widely-utilized application provider were to adopt proprietary integration standards and not make them available for the purposes of facilitating interoperability with our platform, the utility of our platform and offerings for our customers would be decreased, our offerings may become less marketable, less competitive, or obsolete, and our business, financial condition, and results of operations could be adversely affected.

Real or perceived errors, failures, vulnerabilities or bugs in our platform, including deployment complexity, could harm our business, financial condition, and results of operations.

Errors, failures, vulnerabilities or bugs have occurred and may continue to occur in our platform, especially when updates are deployed or new platform offerings and functionalities are rolled out. Our platform is often used in connection with large-scale computing environments with different operating systems, system management software, equipment and networking configurations, which may cause errors or failures of products, or other aspects of the computing environment into which our platform is deployed. In addition, deployment of our platform into complicated, large-scale computing environments may expose errors, failures, vulnerabilities or bugs in our platform. Any such errors, failures, vulnerabilities or bugs may be difficult to detect and may not be found until after they are deployed to our customers. Further, our platform and offerings operate in conjunction with, and we are dependent upon, numerous third-party products and components. There have been and may continue to be significant attacks on certain third-party providers, and we cannot guarantee that our or our third-party providers' systems and networks have not been breached or that they do not contain exploitable defects or bugs that could result in a breach of or disruption to our systems and networks or the systems and networks of third parties that support us and our services. If there is a security vulnerability, error, or other bug in one of these third-party products or components and if there is a security exploit targeting them, we could face increased costs, liability claims, reduced revenue, or harm to our reputation or competitive position. More generally, real or perceived errors, failures, vulnerabilities or bugs in our platform, or delays in or difficulties implementing our platform releases, could result in negative publicity, or corruption of, or unauthorized access to, customer data, loss of or delay in market acceptance of our platform, a decrease in customer satisfaction, confidence or adoption rates, delayed product introductions, compromised ability to protect the data (including personal data) of our customers and our data and intellectual property, an inability to provide some or all of our services, loss of competitive position, or claims by customers for losses sustained by them, all of which could adversely affect our business, financial condition, and results of operations. Such errors, bugs, vulnerabilities or defects could also be exploited by malicious actors and result in exposure of data of users on our platform, or otherwise result in a security breach or other security incident. We may need to expend significant financial and development resources to analyze, correct, eliminate, or work around errors or defects or to address and eliminate vulnerabilities.

If there are interruptions or performance problems associated with our technology or infrastructure, our customers may experience service outages or delays in the deployment of our platform.

Our continued growth depends on the ability of our existing and potential customers to access our platform 24 hours a day, seven days a week, without interruption or degradation of performance. We have in the past and may in the future experience disruptions, outages and other performance problems with our infrastructure due to a variety of factors, including infrastructure changes, introductions of new functionality, human or software errors, capacity constraints, distributed denial-of-service attacks or other security-related incidents. In some instances, we may not be able to identify the cause or causes of these performance problems immediately or in short order. We may not be able to maintain the level of service uptime and performance required by our customers, especially during peak usage times and as our offerings become more complex and our user traffic increases. If our platform is unavailable or if our customers are unable to access our offerings or deploy them within a reasonable amount of time, or at all, our business would be harmed. Frequent or persistent interruptions in our products and services could cause customers to believe that our products and services are unreliable, leading them to switch to our competitors or to otherwise avoid our products and services.

The adverse effects of any service interruptions on our reputation and financial condition may be disproportionately heightened due to the nature of our business and the fact that our customers expect continuous and uninterrupted access to our offerings and have a low tolerance for interruptions of any duration. Since our customers rely on our offerings to provide and secure access to their IT infrastructures and to support customer-facing applications, any outage on our platform would impair the ability of our customers to operate their businesses, which would negatively impact our brand, reputation and customer satisfaction. Additionally, our insurance policies may be insufficient to cover a claim made against us by any customers affected by any disruptions, outages, or other performance or infrastructure problems.

Moreover, we depend on services from various third parties to maintain our cloud infrastructure and deploy our offerings, such as GCP, which hosts our platform. If a third-party service provider fails to provide sufficient capacity to support our platform or otherwise experiences service outages, such failure could interrupt our customers' access to our services, which could adversely affect their perception of our platform's reliability. Any disruptions in these services, including as a result of actions outside of our control, would significantly impact the continued performance of our offerings. In the event that our service agreements are terminated with our cloud infrastructure providers, or there is a lapse of service, interruption of internet service provider connectivity or damage to such providers' facilities, we could experience interruptions in access to our platform as well as delays and additional expense in arranging new facilities and services. In the future, these services may not be available to us on commercially reasonable terms, or at all. Any loss of the right to use any of these services could result in decreased functionality of our offerings until equivalent technology is either developed by us or, if available from another provider, is identified, obtained and integrated into our infrastructure. We may also be unable to effectively address capacity constraints, upgrade our systems as needed and continually develop our technology and network architecture to accommodate actual and anticipated changes in technology.

Our platform is accessed by a large number of customers, often at the same time. As we continue to expand the number of our customers and offerings available to our customers, our technology may not be able to scale to accommodate the increased capacity requirements, which may result in interruptions or delays in service. In addition, the failure of third-party cloud infrastructure providers, third-party internet service providers or other third-party service providers whose services are integrated with our platform to meet our capacity requirements could result in interruptions or delays in access to our platform or impede our ability to scale our operations. Any of the above circumstances or events may harm our reputation, cause customers to terminate their agreements with us, impair our ability to obtain subscription renewals from existing customers, impair our ability to grow our customer base, result in the expenditure of significant financial, technical and engineering resources, subject us to financial penalties and liabilities under our service level agreements, and otherwise could adversely affect our business, financial condition, and results of operations.

System interruption and the lack of integration, redundancy and scalability in these systems and infrastructures may harm our business, financial condition, and results of operations.

Our success depends, in part, on our ability to maintain the integrity of our systems and infrastructure, including websites, information and related systems. System interruption and a lack of integration and redundancy in our information systems and infrastructure may adversely affect our ability to operate websites, process and fulfill transactions, respond to customer inquiries and generally maintain cost-efficient operations. We may experience occasional system interruptions that make some or all systems or data unavailable or prevent us from efficiently providing access to our platform. We also rely on third-party computer systems, broadband and other communications systems and service providers in connection with providing access to our platform generally. Any interruptions, outages or delays in our systems and infrastructure, our business or third parties, or deterioration in the performance of these systems and infrastructure, could impair our ability to provide access to our platform. Fire, flood, power loss, telecommunications failure, hurricanes, tornadoes, earthquakes, other natural disasters, acts of war (including the military conflict in Ukraine) or terrorism and similar events or disruptions may damage or interrupt computer, broadband or other communications systems and infrastructure at any time. Any of these events could cause system interruption, delays and loss of critical data, including personal data, and could prevent us from providing access to our platform. While we have backup systems for certain aspects of these operations, disaster recovery planning by its nature cannot be sufficient for all eventualities. In addition, we may not have adequate insurance coverage to compensate for losses from a major interruption. If any of these events were to occur, it could harm our business, financial condition, and results of operations.

If we fail to efficiently maintain, protect and enhance our brand, our ability to attract new customers could be impaired and our business, financial condition, and results of operations could be adversely affected.

We believe that developing and maintaining awareness of our brand in a cost-effective manner is critical to achieving widespread adoption of our platform and offerings and is critical to our ability to attract new customers. Furthermore, we believe that the importance of brand recognition will increase as competition in our market increases. Successful promotion of our brand will depend largely on the effectiveness of our marketing efforts, our ability to provide reliable and useful offerings at competitive prices, our ability to maintain our customers' trust and our ability to successfully differentiate our services and platform capabilities from competitive products and services, any of which we may not be able to do effectively. In the past, our efforts to build our brand have involved significant expenses. Brand promotion activities may not yield increased revenue, and even if they do, any increased revenue may not offset the expenses we incur in building our brand. If we fail to successfully promote and maintain our brand, or incur substantial expenses in an unsuccessful attempt to promote and maintain our brand, we may fail to attract new customers or retain our existing customers to the extent necessary to realize a sufficient return on our brand-building efforts, and our business, financial condition, and results of operations could be adversely affected.

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

Our ability to increase our customer base and achieve broader market acceptance of our platform depends, in part, on our ability to expand our marketing and sales operations. We plan to continue expanding our direct sales force and engaging additional channel, system integrator and technology partners, both domestically and internationally. This expansion will require us to invest significant financial and other resources. Our business will be harmed if our efforts do not generate a corresponding increase in revenue. We may not achieve anticipated revenue growth from expanding our direct sales force if we are unable to hire and develop talented direct sales personnel, if our new direct sales personnel are unable to achieve desired productivity levels in a reasonable period of time or if we are unable to retain our existing direct sales personnel. We also may not achieve anticipated revenue growth from our partners if we are unable to attract and retain additional motivated partners, if any existing or future partners fail to successfully market, resell, implement or support our platform or offerings for their customers, or if they represent multiple providers and devote greater resources to market, resell, implement and support the products and solutions of other providers. For example, some of our partners also sell or provide integration and administration services for our competitors' products, and if such partners devote greater resources to marketing, reselling and supporting competing products, our business, financial condition, and results of operations could be adversely affected.

If we cannot maintain our corporate culture as we grow, our business could be adversely affected.

We believe that our corporate culture has been a critical component to our success and that our culture creates an environment that drives and perpetuates our overall business strategy. We have invested substantial time and resources in building our team and we expect to continue to hire as we expand, including with respect to our international operations. As we grow our business, we may find it difficult to maintain our corporate culture. Any failure to preserve our culture could negatively affect our future success, including our ability to recruit and retain personnel and effectively execute on our business strategy.

We depend on our management team and other highly skilled personnel, and we may fail to attract, retain, motivate, or integrate highly skilled personnel, which could adversely affect our business, financial condition, and results of operations.

We depend on the continued contributions of our management team, key employees, and other highly skilled personnel. Our management team and key employees are at-will employees, which means they may terminate their relationship with us at any time. The loss of the services of any of our key personnel or delays in hiring required personnel, particularly within our research and development and engineering teams, could adversely affect our business, financial condition, and results of operations. Our future success also depends, in part, on our ability to continue to attract and retain highly skilled personnel. Competition for these personnel in the San Francisco Bay Area, where our headquarters is located, and in other locations where we maintain offices, is high, and the industry in which we operate has in the past been characterized by significant competition for skilled personnel as well as high employee attrition. We may not be successful in attracting, retaining, training or motivating qualified personnel to fulfill our current or future needs. Competitors for technical talent increasingly seek to hire our employees, and the increased availability of work-from-home arrangements, accelerated by the COVID-19 pandemic, has both intensified and expanded competition while also reducing regional salary differences. In addition, changes in immigration policies may further limit the pool of available talent and impair our ability to recruit and hire technical and professional talent. We have intensified our efforts to recruit and retain talent. These efforts have increased our expenses, and they may not be successful in attracting, retaining, and motivating the workforce necessary to deliver on our strategy. Additionally, the former employers of our new employees may attempt to assert that our new employees or we have breached their legal obligations, which may be time-consuming, distracting to management and may divert our resources. To help attract, retain, and motivate

qualified employees, we use stock-based awards, such as RSUs, and performance-based cash incentive awards. Sustained declines in our stock price, or lower stock price performance relative to competitors, can reduce the retention value of our stock-based awards. Our employee hiring and retention also depend on our ability to build and maintain a diverse and inclusive workplace culture and be viewed as an employer of choice. To the extent our compensation programs and workplace culture are not viewed as competitive, our ability to attract, retain, and motivate employees can be weakened, which could harm our results of operations. If we fail to attract and integrate new personnel or retain and motivate our current personnel, our business, financial condition, and results of operations could be adversely affected.

We may be unable to make acquisitions and investments, successfully integrate acquired companies into our business, or our acquisitions and investments may not meet our expectations, any of which could adversely affect our business, financial condition, and results of operations.

We have in the past acquired, and we may in the future acquire or invest in, businesses, offerings, technologies, or talent that we believe could complement or expand our platform, enhance our technical capabilities or otherwise offer growth opportunities. We may not be able to fully realize the anticipated benefits of such acquisitions or investments. The pursuit of potential acquisitions may divert the attention of management and cause us to incur significant expenses related to identifying, investigating and pursuing suitable acquisitions, whether or not they are consummated.

There are inherent risks in integrating and managing acquisitions. If we acquire additional businesses, we may not be able to assimilate or integrate the acquired personnel, operations, solutions and technologies successfully, or effectively manage the combined business following the acquisition. We also may not achieve the anticipated benefits or synergies from the acquired business due to a number of factors, including, without limitation:

- delays or reductions in customer purchases for both us and the acquired business;
- disruption of partner and customer relationships;
- potential loss of key employees of the acquired company;
- claims by and disputes with the acquired company's employees, customers, stockholders or third parties;
- unknown liabilities or risks associated with the acquired business, product or technology, such as contractual obligations, potential security vulnerabilities of the acquired company and its products and services, potential intellectual property infringement, misappropriation or other violation, costs arising from the acquired company's failure to comply with legal or regulatory requirements and litigation matters;
- acquired technologies or products may not comply with legal or regulatory requirements and may require us to make additional investments to make them compliant;
- acquired technologies or products may not be able to provide the same support service levels that we generally offer with our other offerings;
- they could be viewed unfavorably by our partners, our customers, our stockholders or securities analysts;
- unforeseen difficulties relating to integration or other expenses; and
- future impairment of goodwill or other acquired intangible assets.

Acquisitions also increase the risk of unforeseen legal liability, including for potential violations of applicable law or industry rules and regulations, arising from prior or ongoing acts or omissions by the acquired businesses that are not discovered by due diligence during the acquisition process. We may have to pay cash, incur debt or issue equity or equity-linked securities to pay for any future acquisitions, each of which could adversely affect our financial condition or the market price of our common stock. The sale of equity or issuance of equity-linked debt to finance any future acquisitions could result in dilution to our stockholders. The incurrence of indebtedness would result in increased fixed obligations and could also include covenants or other restrictions that would impede our ability to manage our operations. Any of the foregoing could adversely affect our business, financial condition, and results of operations.

We track certain operational metrics with internal systems and tools and do not independently verify such metrics. Certain of our operational metrics are subject to inherent challenges in measurement, and any real or perceived inaccuracies in such metrics may adversely affect our business and reputation.

We track certain operational metrics, including ARR, Net Retention Rate, and number of large customers, with internal systems and tools that are not independently verified by any third party and which may differ from estimates or similar metrics published by third parties due to differences in sources, methodologies or the assumptions on which we rely. Our internal systems and tools have a number of limitations, and our methodologies for tracking these metrics may change over time, which could result in unexpected changes to our metrics, including the metrics we publicly disclose. If the internal systems and tools we use to track these metrics undercount or overcount performance or contain algorithmic or other technical errors, the data we report may not be accurate. While these numbers are based on what we believe to be reasonable estimates of our metrics for the applicable period of measurement, there are inherent challenges in measuring these metrics. Limitations or errors with respect to how we measure data or with respect to the data that we measure may affect our understanding of certain details of our business, which could affect our long-term strategies. If our operating metrics are not accurate representations of our business, if investors do not perceive our operating metrics to be accurate or if we discover material inaccuracies with respect to these figures, we expect that our business, financial condition, and results of operations could be adversely affected.

We have substantial indebtedness under our term loan facility and our obligations thereunder may limit our operational flexibility or otherwise adversely affect our financial condition.

In September 2021, we entered into our Amended and Restated Loan Agreement that provides for senior secured credit consisting of term loans. As of December 31, 2022, the aggregate principal amount of our outstanding indebtedness under our Amended and Restated Loan Agreement was \$40.0 million and no further amounts are available to be drawn at this time. There can be no assurance that we will be able to repay this indebtedness when due, or that we will be able to refinance this indebtedness on acceptable terms or at all. Our indebtedness could adversely impact us. For example, these obligations could, among other things:

- make it difficult for us to pay other obligations;
- increase our cost of borrowing;
- make it difficult to obtain favorable terms for any necessary future financing for working capital, capital expenditures, investments, acquisitions, debt service requirements, or other purposes;
- restrict us from making acquisitions or cause us to make divestitures or similar transactions;
- adversely affect our liquidity and result in an adverse effect on our financial condition upon repayment of the indebtedness;
- require us to dedicate a substantial portion of our cash flow from operations to service and repay the indebtedness, reducing the amount of cash flow available for other purposes;
- increase our vulnerability to adverse and economic conditions;
- place us at a competitive disadvantage compared to our less leveraged competitors; and
- limit our flexibility in planning for and reacting to changes in our business.

Restrictions imposed by our outstanding indebtedness and any future indebtedness may limit our ability to operate our business and to finance our future operations or capital needs or to engage in acquisitions or other business activities necessary to achieve growth.

The terms of our outstanding indebtedness restrict us from engaging in specified types of transactions. Subject to certain exceptions, these covenants restrict our ability to, among other things:

- incur additional indebtedness;
- create or incur liens;
- engage in consolidations, amalgamations, mergers, liquidations, dissolutions or dispositions;
- sell, transfer or otherwise dispose of assets;
- pay dividends and distributions on, or repurchase or redeem, capital stock; and
- make acquisitions, investments, loans, advances or capital contributions.

We cannot guarantee that we will be able to maintain compliance with these covenants or, if we fail to do so, that we will be able to obtain waivers from the lenders and/or amend the covenants. Even if we comply with all of the applicable covenants, the restrictions on the conduct of our business could adversely affect our business by, among other things, limiting our ability to take advantage of financing opportunities, mergers, acquisitions, investments, and other corporate opportunities that may be beneficial to our business. Even if our Amended and Restated Loan Agreement is terminated, any additional debt that we incur in the future could subject us to similar or additional covenants.

A breach of any of the covenants in the Amended and Restated Loan Agreement could result in an event of default, which, if not cured or waived, could trigger acceleration of our indebtedness and an increase in the interest rates applicable to such indebtedness, and may result in the acceleration of or default under any other debt we may incur in the future to which a cross-acceleration or cross-default provision applies. The acceleration of the indebtedness under our Amended and Restated Loan Agreement or under any other indebtedness could have an adverse effect on our business, results of operations, and financial condition. In the event of any default under our existing or future debt instruments, the applicable lenders could elect to terminate borrowing commitments and declare all borrowings and loans outstanding, together with accrued and unpaid interest and any fees and other obligations, to be due and payable. In addition, we have granted a security interest in a significant portion of our assets to secure our obligations under our Amended and Restated Loan Agreement. During the existence of an event of default under our Amended and Restated Loan Agreement, the applicable lenders could exercise their rights and remedies thereunder, including by way of initiating foreclosure proceedings against any assets constituting collateral for our obligations.

We may be unable to generate sufficient cash flow to satisfy our debt service obligations, which could have an adverse effect on our business, financial condition, and results of operations.

Our ability to make scheduled payments on or to refinance our debt obligations depends on our financial condition and results of operations, which are subject to prevailing economic and competitive conditions and to certain financial, business, legislative, regulatory, and other factors beyond our control. We may not be able to maintain a level of cash flows from operating activities sufficient to permit us to pay the principal, premium, if any, or interest on our indebtedness. If our cash flows and capital resources are insufficient to fund our debt service obligations, we may be forced to reduce or delay strategic acquisitions and partnerships, capital expenditures, and payments on account of other obligations, seek additional capital, restructure or refinance our indebtedness, or sell assets. These alternative measures may not be successful and may not permit us to meet our scheduled debt service obligations. Our ability to restructure or refinance our debt will depend on the condition of the capital markets and our financial condition at such time. Any refinancing of our debt could be at higher interest rates and could require us to comply with more onerous covenants, which could further restrict our business operations. In addition, we cannot assure you that we will be able to refinance any of our indebtedness on commercially reasonable terms, or at all.

If we are unable to repay or otherwise refinance our indebtedness when due, or if any other event of default is not cured or waived, the applicable lenders could accelerate our outstanding obligations or proceed against the collateral granted to them to secure that indebtedness, which could force us into bankruptcy or liquidation. In the event the applicable lenders accelerate the repayment of our borrowings, we and our subsidiaries may not have sufficient assets to repay that indebtedness. Any acceleration of amounts due under the agreements governing our amended and restated term loan facility or the exercise by the applicable lenders of their rights under the security documents could have a material and adverse effect on our business.

Despite our level of indebtedness, we and our subsidiaries may still be able to incur substantially more debt, including off-balance sheet financing, contractual obligations and general and commercial liabilities. This could further exacerbate the risks to our financial condition described above.

We and our subsidiaries may incur significant additional indebtedness in the future, including additional tranches of term loans and/or term loan increases and/or revolving credit facilities, contractual obligations, and general and commercial liabilities. Although the terms of our Amended and Restated Loan Agreement contain restrictions on the incurrence of additional indebtedness, such restrictions are subject to a number of significant exceptions and qualifications and any additional indebtedness incurred in compliance with such restrictions could be substantial. These restrictions also will not prevent us from incurring obligations that do not constitute indebtedness. If we and our subsidiaries incur significant additional indebtedness or other obligations, the related risks that we face could increase.

We may require additional capital, which may not be available on terms acceptable to us, or at all.

Historically, we have funded our operations and capital expenditures primarily through equity issuances, debt instruments and cash generated from our operations. To support our growing business, we must have sufficient capital to continue to make significant investments in our platform. If we raise additional funds through the issuance of equity, equity-linked or debt securities, those securities may have rights, preferences or privileges senior to those of our common stock, and our existing stockholders may experience dilution. Any debt financing secured by us in the future could involve restrictive covenants relating to our capital-raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities.

We evaluate financing opportunities from time to time, and our ability to obtain financing will depend on, among other things, our development efforts, business plans and operating performance, and the condition of the capital markets at the time we seek financing. We cannot be certain that additional financing will be available to us on favorable terms, or at all. If we are unable to obtain adequate financing or financing on terms 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 limited, and our business, financial condition, and results of operations could be adversely affected. In September 2021, we entered into our Amended and Restated Loan Agreement, which provides for term loans, and we must adhere to the covenants contained therein.

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

US GAAP is subject to interpretation by the Financial Accounting Standards Board, the “FASB”, the SEC and other various bodies formed to promulgate and interpret appropriate accounting principles. Changes in accounting principles applicable to us, or varying interpretations of current accounting principles, could have a significant effect on our reported results of operations. Further, any difficulties in the implementation of changes in accounting principles, including the ability to modify our accounting systems, could cause us to fail to meet our financial reporting obligations, which could result in regulatory discipline and harm investors’ confidence in us.

Our estimates or judgments relating to our critical accounting policies may be based on assumptions that change or prove to be incorrect, which could cause our results of operations to fall below expectations of securities analysts and investors, resulting in a decline in the market price of our Class A common stock.

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in our 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 described in the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” The results of these estimates form the basis for making judgments about the recognition and measurement of certain assets and liabilities and revenue and expenses that is not readily apparent from other sources. Our accounting policies that involve judgment include those related to revenue recognition, the period of benefit for deferred sales commissions, assumptions used for estimating the fair value of common stock and to calculate stock-based compensation, certain accrued liabilities, and valuation allowances associated with income taxes. If our assumptions change or if actual circumstances differ from those in our assumptions, our results of operations could be adversely affected, which could cause our results of operations to fall below the expectations of securities analysts and investors, resulting in a decline in the market price of our Class A common stock.

We may fail to maintain an effective system of disclosure controls and internal control over financial reporting, which could impair our ability to produce timely and accurate financial statements or comply with applicable regulations.

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, Sarbanes-Oxley Act, and the listing standards of NYSE. The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. Our management is responsible for establishing and maintaining adequate internal control over financial reporting to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles. We may in the future discover weaknesses in our internal financial and accounting controls and procedures that need improvement. Our internal control over financial reporting will not prevent or detect all error and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. All control systems have inherent limitations, and, accordingly, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud will be detected. We have expended, and anticipate that we will continue to expend, significant resources in order to maintain and improve the effectiveness of our disclosure controls and procedures and internal control over financial reporting. If we are unable to maintain proper and effective internal controls, we may not be able to produce accurate financial statements on a timely basis, which could adversely affect our ability to operate our business and could result in regulatory action. Ineffective disclosure controls and procedures and internal control over financial reporting could also cause investors to lose confidence in our reported financial and other information, which would likely adversely affect the market price of our common stock. In addition, if we are unable to continue to meet these requirements, we may not be able to remain listed on NYSE.

Our independent registered public accounting firm may issue a report that is adverse in the event it is not satisfied with the level at which our internal control over financial reporting is documented, designed or operating. Any failure to maintain effective disclosure controls and internal control over financial reporting could have an adverse effect on our business, financial condition and results of operations and could cause a decline in the market price of our Class A common stock.

Our business could be adversely affected by economic downturns.

Prolonged economic uncertainties or downturns could adversely affect our business, financial condition, and results of operations. Negative conditions in the general economy in either the United States or abroad, including conditions resulting from financial and credit market fluctuations, changes in economic policy, trade uncertainty, including changes in tariffs, sanctions, international treaties and other trade restrictions, the occurrence of a natural disaster or global public health crisis, such as the COVID-19 pandemic, or armed conflicts, such as the military conflict in Ukraine, resulting sanctions imposed by the U.S. and other countries, and retaliatory actions taken by Russia in response to such sanctions, could cause a decrease in corporate spending on digital identity offerings in general and negatively affect the growth of our business.

These conditions could make it extremely difficult for our customers and us to forecast and plan future business activities accurately and could cause our customers to reevaluate their decision to purchase access to our platform, which could delay and lengthen our sales cycles or result in cancellations of planned purchases. These conditions could also cause our customers to reduce their spend, or duration of, their contracts with us, or request concessions including extended payment terms or better pricing. Further, during challenging economic times, our customers may face issues in gaining timely access to sufficient credit, which could result in an impairment of their ability to make timely payments to us, if at all. If that were to occur, we may be required to increase our allowance for doubtful accounts, which would adversely affect our results of operations.

A substantial downturn in any of the industries in which our customers operate may cause firms to react to worsening conditions by reducing their capital expenditures in general or by specifically reducing their spending on digital identity offerings. Customers in these industries may delay or cancel projects or seek to lower their costs by renegotiating vendor contracts. To the extent purchases of access to our platform are perceived by customers and potential customers to be discretionary, our revenue may be disproportionately affected by delays or reductions in general digital identity spending.

We cannot predict the timing, strength or duration of any economic slowdown, instability or recovery, generally or within any particular industry or geography. Any economic downturns of the general economy or industries in which we operate would adversely affect our business, financial condition, and results of operations. For example, the full impact of the COVID-19 pandemic is unknown at this time but could result in adverse changes in our results of operations for an unknown period of time.

Our business could be adversely affected by pandemics, natural disasters, political crises or other unexpected events.

A significant natural disaster, such as an earthquake, fire, hurricane, tornado, flood or significant power outage, could disrupt our operations, mobile networks, the Internet or the operations of our third-party technology providers. In particular, our corporate headquarters is located in the San Francisco Bay Area, a region known for seismic activity. In addition, any unforeseen public health crises, such as the COVID-19 pandemic, political crises, such as terrorist attacks, war and other political instability, such as the military conflict in Ukraine, resulting sanctions imposed by the U.S. and other countries and retaliatory actions taken by Russia in response to such sanctions, or other catastrophic events, whether in the United States or abroad, can continue to adversely affect our operations or the economy as a whole. The impact of any natural disaster, act of terrorism or other disruption to us or our third-party providers' abilities could result in decreased demand for our platform or a delay in the provision of our platform, which would adversely affect our business, financial condition, and results of operations. All of the aforementioned risks would be further increased if our disaster recovery plans prove to be inadequate.

Risks Related to Our Dependence on Third Parties

If we are unable to build and maintain successful relationships with our partners, our business, financial condition and results of operations could be adversely affected.

We employ a go-to-market business model whereby a meaningful portion of our revenue is generated by sales through our strategic global channel partners, including global strategic consulting firms and global systems integrators, that further expand the reach of our direct sales force into additional geographies, sectors and industries. We provide certain of our partners with specific training and programs to assist them in selling access to our platform, and our deal cycles are sometimes protracted due to our partners' involvement. If our partners are unsuccessful in marketing and selling access to our platform, it would limit our expansion into certain geographies, sectors and industries. If we are unable to develop and maintain effective sales incentive programs for our partners, we may not be able to incentivize these partners to sell access to our platform to customers.

Identifying partners, and negotiating and documenting relationships with them, requires significant time and resources. Our competitors may be effective in causing third parties to favor their products or services over subscriptions to our platform. In addition, acquisitions of such partners by our competitors could result in a decrease in the number of our current and potential customers, as these partners may no longer facilitate the adoption of our applications by potential customers. Further, some of our partners are or may become competitive with certain of our offerings and may elect to no longer integrate with our platform. If we are unsuccessful in establishing or maintaining our relationships with third parties, our ability to compete in the marketplace or to grow our revenue could be impaired, and our results of operations may suffer. Even if we are successful, we cannot ensure that these relationships will result in increased customer adoption and usage of our platform or increased revenue. If our existing relationships with our partners are disrupted or terminated for any of these factors, our business, financial condition, and results of operations could be adversely affected.

Defects in or the loss of access to software or services from third parties could increase our costs and adversely affect the quality of our platform.

We rely on technologies from third parties to operate critical functions of our business, including cloud infrastructure services such as GCP, customer relationship management services, support software and development hardware. Our business would be disrupted if any of the third-party software or services we use, or functional equivalents, were unavailable due to extended outages or interruptions or because they are no longer available on commercially reasonable terms or prices. In each case, we would be required to either seek licenses to software or services from other parties and redesign our platform and offerings to function with such software or services or develop substitutes ourselves, which would result in increased costs and could result in delays in our offering launches and the release of new platform offerings until equivalent technology can be identified, licensed or developed, and integrated into our platform. Furthermore, we might be forced to limit the features available on our platform. Any delays and feature limitations could adversely affect our business, financial condition, and results of operations.

Certain estimates and information that we refer to publicly are based on information from third-party sources and we do not independently verify the accuracy or completeness of the data contained in such sources or the methodologies for collecting such data, and any real or perceived inaccuracies in such estimates and information may harm our reputation and adversely affect our business.

Certain estimates and information that we refer to publicly, including general expectations concerning our industry and the market in which we operate and addressable market size, are based to some extent on information provided by third-party providers. This information involves a number of assumptions and limitations, and although we believe the information from such third-party sources is reliable, we have not independently verified the accuracy or completeness of the data contained in such third-party sources or the methodologies for collecting such data. If there are any limitations or errors with respect to such data or methodologies, or if investors do not perceive such data or methodologies to be accurate, or if we discover material inaccuracies with respect to such data or methodologies, our business, financial condition, and results of operations could be adversely affected.

Risks Related to Our Intellectual Property

We use open source software in our platform and offerings, which could negatively affect our ability to offer our platform and expose us to litigation or other actions.

We use open source software in our platform and offerings and expect to use more open source software in the future. In certain circumstances, we also make available, upon customer request, the source code of the open source portions of our software. From time to time, there have been claims challenging the ownership of open source software against companies that incorporate open source software into their products. However, the terms of many open source licenses have not been interpreted by U.S. or foreign courts, and there is a risk that these licenses could be construed in a way that could impose unanticipated conditions or restrictions on our ability to commercialize our platform and offerings. As a result, we could be subject to lawsuits by parties claiming ownership of what we believe to be open source software, or claiming that software we developed using such open source software is a derivative work of open source software and demanding the release of portions of our source code, or otherwise seeking to enforce the terms of the applicable open source license. Litigation could be costly for us to defend, have a negative effect on our financial condition and results of operations or require us to devote additional research and development resources to change our platform and offerings.

In addition, if we were to combine our proprietary software offerings with open source software in a certain manner, we could, under certain of the open source licenses, be required to release the source code of our proprietary software to the public. While we monitor our use of open source software and try to ensure that none is used in a manner that would require us to disclose our proprietary source code or that would otherwise breach the terms of an open source agreement, such use could inadvertently occur, or could be claimed to have occurred, in part because open source license terms are often ambiguous. This would allow our competitors to create similar products with less development effort and time. If we inappropriately use open source software, or if the license terms for open source software that we use change, we may be required to re-engineer our platform or offerings, incur additional costs, discontinue the sale of some or all of our platform or take other remedial actions.

In addition to risks related to license requirements, usage of open source software can lead to greater risks than use of third-party commercial software, as open source licensors generally do not provide warranties or assurance of title or controls on origin of the software. There is typically no support available for open source software, and we cannot ensure that the authors of such open source software will implement or push updates to address security risks or will not abandon further development and maintenance. In addition, many of the risks associated with usage of open source software, such as the lack of warranties or assurances of title, cannot be eliminated, and could, if not properly addressed, negatively affect our business. We have established processes to help alleviate these risks, including a review process for screening requests from our development organizations for the use of open source software, but we cannot be sure that all of our use of open source software is in a manner that is consistent with our current policies and procedures, or will not subject us to liability. Any of these risks could be difficult to eliminate or manage and, if not addressed, could have an adverse effect on our business, financial condition, and results of operations.

If we fail to adequately obtain, maintain, defend, protect or enforce our intellectual property or proprietary rights, our competitive position could be impaired and we may lose valuable assets, generate less revenue and incur costly litigation.

Our success is dependent, in part, upon protecting our intellectual property, proprietary information and technology. We rely, or may in the future rely, on a combination of patents, copyrights, trademarks, service marks, trade secret laws in the United States and certain other jurisdictions and contractual restrictions to establish and protect our proprietary rights, all of which provide only limited protection. However, the steps we take to protect our intellectual property may be inadequate and 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. Various factors outside our control pose a threat to our intellectual property rights, as well as to our products, services and technologies. For example, we may fail to obtain effective intellectual property protection, or the efforts we have taken to protect our intellectual property rights may not be sufficient or effective, and any of our intellectual property rights may be challenged, which could result in them being narrowed in scope or declared invalid or unenforceable.

We make business decisions about when to seek patent protection for a particular technology and when to rely upon trade secret protection, and the approach we select may ultimately prove to be inadequate. There can be no assurance our intellectual property rights will be sufficient to protect against others offering products or services that are substantially similar to ours and compete with our business or that unauthorized parties may attempt to copy aspects of our technology and use information that we consider proprietary. For example, it is possible that third parties, including our competitors, may obtain patents relating to technologies that overlap or compete with our technology. If third parties obtain patent protection with respect to such technologies, they may assert that our technology infringes their patents and seek to charge us a licensing fee or otherwise preclude the use of our technology.

We rely in part on trade secrets, proprietary know-how and other confidential information to maintain our competitive position. We attempt to protect our intellectual property, technology and confidential information by requiring our employees, contractors, consultants, corporate collaborators, advisors and other third parties who develop intellectual property on our behalf to enter into confidentiality and invention assignment agreements and third parties we share information with to enter into nondisclosure and confidentiality agreements. However, we cannot guarantee that we have entered into such agreements with each party who has developed intellectual property on our behalf and each party that has or may have had access to our confidential information, know-how and trade secrets, and no assurance can be given that these agreements will be effective in controlling access to and distribution of our intellectual property, trade secrets, platform or offerings and proprietary and confidential information. Further, these agreements do not prevent our competitors from independently developing technologies that are substantially equivalent or superior to our platform or offerings. These agreements may be insufficient or breached, or may not effectively prevent unauthorized access to or unauthorized use, disclosure, misappropriation or reverse engineering of, our confidential information, intellectual property, or technology. Moreover, these agreements may not provide an adequate remedy for breaches or in the event of unauthorized use or disclosure of our confidential information or technology, or infringement of our intellectual property. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret or know-how is difficult, expensive, and time-consuming, and the outcome is unpredictable. In addition, trade secrets and know-how can be difficult to protect and some courts inside and outside the U.S. are less willing or unwilling to protect trade secrets and know-how. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor or other third party, we would have no right to prevent them from using that technology or information to compete with us, and our competitive position would be adversely harmed. The loss of trade secret protection could make it easier for third parties to compete with our products and services by copying functionality. Additionally, individuals not subject to invention assignment agreements may make adverse ownership claims to our current and future intellectual property, and, to the extent that our employees, independent contractors or other third parties with whom we do business use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions.

Despite our precautions, it may be possible for unauthorized third parties to copy our platform or offerings and use information that we regard as proprietary to create products that compete with ours. Some license provisions protecting against unauthorized use, copying, transfer and disclosure of our platform or offerings may be unenforceable under the laws of certain jurisdictions and foreign countries. Further, the laws of some countries do not protect intellectual property and proprietary rights to the same extent as the laws of the United States, and mechanisms for enforcement of intellectual property rights in some foreign countries may be inadequate. Any of our intellectual property rights may be challenged or circumvented by others or invalidated or held unenforceable through administrative process or litigation in the United States or in foreign jurisdictions. Furthermore, legal standards relating to the validity, enforceability and scope of protection of intellectual property rights are uncertain and any changes in, or unexpected interpretations of, intellectual property laws may compromise our ability to enforce our trade secrets and intellectual property rights. To the extent we expand our international activities, our exposure to unauthorized copying and use of our platform or offerings and proprietary information may increase. Accordingly, despite our efforts, we may be unable to prevent third parties from infringing, misappropriating, or otherwise violating our technology and intellectual property.

To protect our intellectual property rights, we may be required to spend significant time, money, and resources to maintain, monitor, and protect these rights. Litigation may be necessary in the future to enforce our intellectual property rights and to protect our trade secrets. Such litigation 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. Additionally, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. 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 or offerings, impair the functionality of our platform or offerings, delay introductions of new offerings, result in our substituting inferior or more costly technologies into our platform and offerings, or injure our reputation.

If we cannot license rights to use technologies on reasonable terms, we may not be able to commercialize new products in the future.

In the future, we may identify additional third-party intellectual property that we may need to license to conduct our business, including to develop or commercialize new products or services. However, such licenses may not be available on acceptable terms or at all. The licensing or acquisition of third-party intellectual property rights is a competitive area, and several more established companies may pursue strategies to license or acquire third-party intellectual property rights that we may consider attractive or necessary. These established companies may have a competitive advantage over us due to their size, capital resources and greater development or commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. Even if such licenses are available, we may be required to pay the licensor substantial royalties based on sales of our products and services. Such royalties are a component of the cost of our products or services and may affect the margins on our products and services. In addition, such licenses may be non-exclusive, which could give our competitors access to the same intellectual property licensed to us. If we are unable to enter into the necessary licenses on acceptable terms or at all, if any necessary licenses are subsequently terminated, if our licensors fail to abide by the terms of the licenses, if our licensors fail to prevent infringement by third parties, or if the licensed intellectual property rights are found to be invalid or unenforceable, our business, financial condition, and results of operations could be adversely affected. Defense of any lawsuit or failure to obtain any of these licenses on favorable terms could prevent us from commercializing products, which could have an adverse effect on our competitive position, business, financial condition, and results of operations.

If we are subject to a claim that we infringe, misappropriate or otherwise violate a third party's intellectual property rights, our business, financial condition, or results of operations could be adversely affected.

Claims by third parties that we or customers using our platform infringe, misappropriate or otherwise violate their proprietary technology or other intellectual property rights could harm our business. A number of companies in our industry hold a large number of patents and also protect their copyrights, trade secrets and other intellectual property rights, and there is considerable patent and other intellectual property development activity in our industry. We expect that software companies will increasingly be subject to claims of infringement, misappropriation and other violations of intellectual property rights as the number of products and competitors grows and the functionality of products in different industry segments overlaps. As we face increasing competition and become increasingly high profile, the possibility of receiving a larger number of intellectual property claims against us grows. In addition, various "non-practicing entities," and other intellectual property rights holders may attempt to assert intellectual property claims against us or seek to monetize the intellectual property rights they own to extract value through licensing or other settlements.

In addition, the patent portfolios of many of our competitors are larger than ours, and this disparity may increase the risk that our competitors may sue us for patent infringement and may limit our ability to counterclaim for patent infringement or settle through patent cross-licenses. Our use of third-party software and other intellectual property rights also may be subject to claims of infringement or misappropriation. For example, a claim may be made relating to technology that we acquire or license from third parties. In addition, to the extent we hire personnel from competitors, we may be subject to allegations that such personnel have divulged proprietary or other confidential information to us. Further, we may be unaware of the intellectual property rights of others that may cover some or all of our technology, and our insurance may not cover intellectual property rights infringement claims that may be made.

Our agreements with our customers or third-party service providers also contain indemnification provisions related to claims that our platform infringes upon, misappropriates or otherwise violates the intellectual property rights of third parties. We have in the past, and may in the future, receive such claims. In the event that the resolution of such claims requires us to indemnify our customers or third-party service providers for significant amounts, our business, financial condition and results of operations could be adversely affected. Any claim of infringement, misappropriation or other violation, regardless of its merit or our defenses, could:

- require costly litigation to resolve or the payment of substantial damages, ongoing royalty payments, or other significant amounts to settle such disputes;
- require significant management time and attention;
- cause us to enter into unfavorable royalty or license agreements, which may not be available on commercially reasonable terms, if at all;
- require us to discontinue the sale of some or all of our platform, remove, or reduce features or functionality of our platform or comply with other unfavorable terms;
- require us to indemnify our customers or third-party service providers; or
- require us to expend additional development resources to redesign our platform.

Any of the foregoing could adversely affect our business, financial condition, and results of operations.

If we fail to comply with our obligations under license or technology agreements with third parties, we may be required to pay damages and we could lose license rights that are critical to our business.

We license from third parties certain intellectual property, technologies, data, content and software that are important to our business, and in the future we may enter into additional agreements. If we fail to comply with any of the obligations under our license agreements, we may be required to pay damages and the licensor may have the right to terminate the license. Termination by the licensor may cause us to lose valuable rights, and could prevent us from selling our products and services, or inhibit our ability to commercialize future products and services. Our business may suffer if any current or future licenses terminate, if the licensors fail to abide by the terms of the license, if the licensors fail to enforce licensed patents against infringing third parties, if the licensed intellectual property rights are found to be invalid or unenforceable, or if we are unable to enter into necessary licenses on acceptable terms. Moreover, our licensors may not own or control intellectual property that has been licensed to us and, as a result, we may be subject to claims, regardless of their merit, that we are infringing, misappropriating or otherwise violating a third party's rights. In addition, the agreements under which we license intellectual property or technology from third parties are generally complex, and certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, or increase what we believe to be our financial or other obligations under the relevant agreement. Any of the foregoing could have an adverse effect on our competitive position, business, financial condition, and results of operations.

We may be obligated to disclose our proprietary source code to certain of our customers, which may limit our ability to protect our intellectual property and proprietary rights and could reduce the renewals of our solutions.

Some of our customer agreements contain provisions permitting the customer to become a party to, or a beneficiary of, a source code escrow agreement under which we place the proprietary source code for certain of our products in escrow with a third party, and in certain circumstances, upon customer request, we also make available the source code of our proprietary software. We are currently party to a source code escrow agreement, pursuant to which an escrow agent may release our source code to customers identified as beneficiaries under such agreement (i) upon our written request or (ii) if we become the subject of a voluntary or involuntary petition in bankruptcy (other than a case filed under chapter 11 of the U.S. Bankruptcy Code), and such petition is not dismissed within 120 days of filing, or if we admit in writing of our inability to pay our debts as they become due. We have never released our source code from escrow. Agreements with certain customers may also require us to release our source code under certain other circumstances, such as material breach of the applicable agreement. Disclosing the content of our source code may limit the intellectual property protection we can obtain or maintain for our source code or our products containing that source code and may facilitate intellectual property infringement, misappropriation or other violation claims against us. Following any such release, we cannot be certain that customers will comply with the restrictions on their use of the source code and we may be unable to monitor and prevent unauthorized disclosure of such source code by customers. Any increase in the number of people familiar with our source code as a result of any such release also may increase the risk of a successful hacking attempt. Any of these circumstances could result in an adverse effect on our business, financial condition, and results of operations.

Risks Related to Legal and Regulatory Environment

Our business is subject to a wide range of laws and regulations, many of which are evolving, and failure to comply with such laws and regulations could harm our business, financial condition, and results of operations.

Our business is subject to regulation by various federal, state, local and foreign governmental agencies, including agencies responsible for monitoring and enforcing data privacy, security and protection laws and regulations, intellectual property, employment and labor laws, workplace safety, consumer protection laws, anti-bribery laws, import and export controls, immigration laws, federal securities laws and tax laws and regulations. In certain foreign jurisdictions, these regulatory requirements may be more stringent than in the United States. These laws and regulations impose added costs on our business. Noncompliance with applicable regulations or requirements could subject us to:

- investigations, enforcement actions, orders and sanctions;
- mandatory changes to our products and services;
- disgorgement of profits, fines and damages;
- civil and criminal penalties or injunctions;
- claims for damages by our customers or partners;
- termination of contracts;
- loss of intellectual property rights; and
- temporary or permanent debarment from sales to heavily regulated organizations and governments.

If any governmental sanctions are imposed, or if we do not prevail in any possible civil or criminal litigation, our business, financial condition, and results of operations could be adversely affected. 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 materially harm our business, financial condition, and results of operations.

In addition, we must comply with laws and regulations relating to the formation, administration and performance of contracts with customers in heavily regulated industries and the public sector, including U.S. federal, state and local governmental organizations, which affect how we and our partners do business with such customers. Selling our product to customers in heavily regulated industries or to the U.S. government, whether directly or through partners, also subjects us to certain regulatory and contractual requirements. Failure to comply with these requirements by either us or our partners could subject us to investigations, fines and other penalties, which would adversely affect our business, financial condition, and results of operations. Violations of certain regulatory and contractual requirements could also result in us being suspended or debarred from future government contracting or other contracting opportunities. Any of these outcomes could adversely affect our business, financial condition, and results of operations.

We are subject to stringent laws, rules and regulations regarding privacy, data protection and information security. Any actual or perceived failure by us to comply with such laws, rules and regulations, the privacy or security provisions of our privacy policy, our contracts or other legal or regulatory requirements could result in proceedings, actions or penalties against us and materially adversely affect our business.

Our customers' collection, storage, use and other processing of data concerning, among others, their employees, contractors, partners and customers is essential to their use of our platform. We have implemented various features intended to enable our customers to better comply with applicable privacy, data protection and information security requirements in their collection, use and other processing of data within our online service, but these features do not ensure their compliance and may not be effective against all potential concerns relating to privacy, data protection or information security.

Many jurisdictions have enacted or are considering enacting or revising privacy, data protection or information security legislation, including laws, rules and regulations applying to the collection, use, storage, transfer, disclosure or other processing of personal data, including for purposes of marketing and other communications. The costs of compliance with, and other burdens imposed by, such laws, rules and regulations that are applicable to the operations of our business, or those of our customers, may limit the use and adoption of our service and reduce overall demand for it. These privacy, data protection and information security related laws, rules and regulations are evolving and may result in increasing regulatory and public scrutiny and escalating levels of enforcement and sanctions. In addition, we are subject to certain contractual obligations regarding the collection, use, storage, transfer, disclosure or other processing of personal data. Although we are working to comply with applicable federal, state, and foreign laws, rules and regulations, industry standards, contractual obligations and other legal obligations that apply to us, those laws, rules, regulations, standards and obligations are evolving and may be modified, interpreted and applied in an inconsistent manner from one jurisdiction to another, and may conflict with one another, other requirements or legal obligations, our practices or the features of our platform. We also expect that there will continue to be new proposed laws, regulations and industry standards concerning privacy, data protection and information security in the United States, the European Union and other jurisdictions, and we cannot yet determine the impact such future laws, regulations and standards may have on our business.

California has enacted the CCPA, which took effect on January 1, 2020 and established a new privacy framework for covered businesses such as ours, which may require us to modify our data processing practices and policies and incur compliance-related costs and expenses. The CCPA broadly defines personal information and gives California residents expanded privacy rights and protections, such as affording them the right to access and request deletion of their information and to opt out of certain sharing and sales of personal information. The law also prohibits covered businesses from discriminating against California residents (for example, charging more for services) for exercising any of their CCPA rights. The CCPA provides for severe civil penalties and statutory damages for violations and a private right of action for certain data breaches that result in the loss of personal information. This private right of action is expected to increase the likelihood of, and risks associated with, data breach litigation. In November 2020, California voters passed the California Privacy Rights Act of 2020, or CPRA. Effective in most material respects as of January 1, 2023, the CPRA imposes additional obligations on companies covered by the legislation and significantly modifies the CCPA, including by expanding the CCPA with additional data privacy compliance requirements that may impact our business. The CPRA also establishes a regulatory agency dedicated to enforcing the CCPA and the CPRA. The effects of the CPRA, the CCPA, other similar state or federal laws, and other future changes in laws or regulations relating to privacy, data protection and information security, particularly any new or modified laws or regulations that require enhanced protection of certain types of data or new obligations with regard to data retention, transfer or disclosure, are significant, may require us to modify our data processing practices and policies, and could greatly increase the cost of providing our offerings, require significant changes to our operations or even prevent us from providing certain offerings in jurisdictions in which we currently operate and in which we may operate in the future or incur potential liability in an effort to comply with such legislation.

Other state legislatures are currently contemplating, and may pass, their own comprehensive data privacy and security laws, with potentially greater penalties and more rigorous compliance requirements relevant to our business, and many state legislatures have already adopted legislation that regulates how businesses operate online, including measures relating to privacy, data security, data breaches and the protection of sensitive and personal information. For example, in March 2021, Virginia enacted the Virginia Consumer Data Protection Act, or CDPA, which took effect on January 1, 2023; in June 2021, Colorado enacted the Colorado Privacy Act, or CPA, which becomes effective on July 1, 2023; in March 2022, Utah enacted the Utah Consumer Privacy Act, or UCPA, which becomes effective on December 31, 2023; and in May 2022, Connecticut enacted the Connecticut Act Concerning Personal Data Privacy and Online Monitoring, or CPOMA, which takes effect on December 31, 2023. The CDPA, CPA, UCPA, and CPOMA are comprehensive privacy statutes that share similarities with the CCPA, the CPRA, and legislation proposed in other states. The U.S. federal government also is contemplating federal privacy legislation. Laws in all 50 states require businesses to provide notice under certain circumstances to customers whose personal information has been disclosed as a result of a data breach. New laws, amendments to or re-interpretations of existing laws and regulations, industry standards, contractual obligations and other obligations may require us to incur additional costs and restrict our business operations. Such laws and regulations may require companies to implement privacy and security policies, permit users to access, correct and delete personal data stored or maintained by such companies, inform individuals of security breaches that affect their personal data, and, in some cases, obtain individuals' consent to use personal data for certain purposes. If we, or the third parties on which we rely, fail to comply with federal, state or international laws or regulations relating to privacy, data protection or information security, our ability to successfully operate our business and pursue our business goals could be harmed. In addition to government activity, privacy advocacy groups and technology and other industries are considering various new, additional or different self-regulatory standards that may place additional burdens on us. Future laws, regulations, standards and other obligations, and changes in the interpretation of existing laws, regulations, standards and other obligations may require us to modify our data processing practices and policies, and could impair our or our customers' ability

to collect, use or disclose information relating to consumers, which could decrease demand for our applications, increase our costs and impair our ability to maintain and grow our customer base and increase our revenue.

Internationally, many jurisdictions have established their own legal frameworks governing privacy, data protection, and information security with which we may need to comply. For example, the European Union has adopted the GDPR, which went into effect in May 2018 and contains numerous requirements and changes from previously existing EU law, including more robust obligations on data processors and heavier documentation requirements for data protection compliance programs. The GDPR requires data controllers to implement more stringent operational requirements for processors and controllers of personal data, including, for example, transparent and expanded disclosure to data subjects about how their personal data is to be used, imposes limitations on retention of information, introduces mandatory data breach notification requirements, and sets higher standards for data controllers to demonstrate that they have obtained valid consent for certain data processing activities. The GDPR also imposes strict rules on the transfer of personal data to countries outside the European Economic Area, or the EEA, including the United States. In 2016, the EU and United States agreed to a transfer framework for data transferred from the EEA to the United States, called the EU-U.S. Privacy Shield, but the EU-U.S. Privacy Shield was invalidated in July 2020 by the Court of Justice of the EU, or CJEU. On September 8, 2020, the Swiss Federal Data Protection and Information Commissioner invalidated the Swiss-U.S. Privacy Shield on similar grounds. The standard contractual clauses issued by the European Commission for the transfer of personal data, or the SCCs, a potential alternative to the EU-U.S. Privacy Shield, also have been drawn into question for use under certain circumstances, and regulators have issued additional guidance regarding considerations and requirements that we and other companies must consider and undertake when using the SCCs. In its decision invalidating the EU-U.S. Privacy Shield, the CJEU imposed additional obligations on companies when relying on the SCCs to transfer personal data. The CJEU decision may result in European data protection regulators applying differing standards for, and requiring ad hoc verification of, transfers of personal data from the EEA and Switzerland to the U.S. On June 4, 2021, the European Commission published new SCCs that are required to be implemented, and it remains to be seen whether additional means for lawful data transfers will become available. The revised SCCs, recommendations and opinions of regulators, and other developments relating to cross-border data transfer, may require us to implement additional contractual and technical safeguards for any personal data transferred out of the EEA and Switzerland, which may increase compliance and related costs, lead to increased regulatory scrutiny or liability, necessitate additional contractual negotiations, and adversely impact our business, financial condition, and results of operations. Fines for noncompliance with the GDPR are significant and can be up to the greater of €20.0 million or 4% of annual global turnover. The GDPR also provides that EU member states may introduce further conditions, including limitations, and make their own laws and regulations further limiting the processing of 'special categories of personal data,' including personal data related to health, biometric data used for unique identification purposes and genetic information, which could limit our ability to collect, use and share EU data, and could cause our compliance costs to increase, ultimately having an adverse impact on our business, financial condition, and results of operations.

Further, the United Kingdom's exit from the European Union, often referred to as Brexit, and ongoing developments in the United Kingdom have created uncertainty with regard to data protection regulation in the United Kingdom. Following the expiry of transitional arrangements agreed to between the United Kingdom and European Union, data processing in the United Kingdom is governed by a United Kingdom version of the GDPR (combining the GDPR and the United Kingdom's Data Protection Act 2018), which authorizes significant fines, up to the greater of £17.5 million or 4% of global turnover, and exposes us to two parallel regimes and other potentially divergent enforcement actions for certain violations. On June 28, 2021, the European Commission announced a decision that the United Kingdom is an "adequate country" to which personal data could be exported from the EEA, but this decision must be renewed and may face challenges in the future, creating uncertainty regarding transfers of personal data to the United Kingdom from the EEA. Furthermore, there exists the potential over time for divergence in application, interpretation and enforcement of the data protection law as between the United Kingdom and EEA. On February 2, 2022, the United Kingdom's Information Commissioner's Office issued new standard contractual clauses, or the UK SCCs, to support personal data transfers out of the United Kingdom. The UK SCCs became effective March 21, 2022, and like the EU SCCs, also are required to be implemented over time. We may, in addition to other impacts, experience additional costs associated with increased compliance burdens and be required to engage in new contract negotiations with third parties that aid in processing personal data on our behalf or localize certain personal data of United Kingdom data subjects. Other countries have also passed or are considering passing laws requiring local data residency or restricting the international transfer of data. Additionally, many jurisdictions outside the United States, EEA, and United Kingdom in which we have operations or for which such jurisdictions' laws or regulations may apply to us or our operations, including Canada, Australia, New Zealand, and Singapore, maintain laws and regulations relating to privacy, data protection, and information security that provide for extensive obligations in connection with the use, collection, protection, and processing of personal data. Many of these legal regimes provide for substantial fines, penalties, or other consequences for noncompliance. We may be required to implement new measures or policies, or change our existing policies and measures or the features of our platform, in an effort to comply with U.S. and international laws, rules, and regulations relating to privacy, data protection and information security, which may require us to expend substantial financial and other resources and which may otherwise be difficult to undertake.

Any failure or perceived failure by us to comply with federal, state or foreign laws, rules or regulations, industry standards, contractual or other legal obligations relating to privacy, data protection or information security, or any actual, perceived or suspected security incident, whether or not resulting in unauthorized access to, or acquisition, release or transfer of personal data or other data, may result in enforcement actions and prosecutions, private litigation, significant fines, penalties and censure, claims for damages by customers and other affected individuals, regulatory inquiries and investigations or adverse publicity and could cause our customers to lose trust in us, any of which could have an adverse effect on our reputation and business. Since many of our offerings involve the processing of personal data from our customers and their employees, contractors, customers, partners and others, any inability to adequately address privacy, data protection or information security concerns, even if unfounded, or comply with applicable laws, rules, regulations, policies, industry standards, contractual or other legal obligations could result in additional cost and liability to us, damage our reputation, inhibit sales and adversely affect our business, financial condition, and results of operations.

Around the world, there are numerous lawsuits in process against various technology companies that process personal data. If those lawsuits are successful, it could increase the likelihood that our company may be exposed to liability for our own policies and practices concerning the processing of personal data and could hurt our business. Furthermore, the costs of compliance with, and other burdens imposed by laws, regulations and policies concerning privacy, data protection and information security that are applicable to the businesses of our customers may limit the use and adoption of our platform and reduce overall demand for it. Concerns relating to privacy, data protection or information security whether or not valid, may inhibit market adoption of our platform. Additionally, concerns about privacy, data protection or information security may result in the adoption of new legislation that restricts the implementation of technologies like ours or requires us to make modifications to our platform, which could significantly limit the adoption and deployment of our technologies or result in significant expense to modify our platform.

We publicly post our privacy policies and practices concerning our collection, use, disclosure and other processing of the personal data provided to us by our website visitors and by our customers. Although we endeavor to comply with our public statements and documentation, we may at times fail to do so or be alleged to have failed to do so. Our publication of our privacy policies and other statements we publish that provide promises and assurances about privacy, data protection and information security can subject us to potential regulatory action if they are found to be deceptive, unfair or misrepresentative of our actual practices.

Evolving and changing definitions of what constitutes “personal information” and “personal data” within the EEA, the United States and elsewhere, especially relating to classification of IP addresses, machine or device identification numbers, location data and other information, may limit or inhibit our ability to operate or expand our business, including limiting technology alliance partners that may involve the sharing of data. In addition, rapidly-evolving privacy laws and frameworks distinguish between a data processor and data controller (or under the CCPA, whether a business is a ‘service provider’), and different risks and requirements may apply to us, depending on the nature of our data processing activities. If our business model expands and changes over time, different sets of risks and requirements may apply to us, requiring us to re-orient the business accordingly.

If our platform is perceived to cause, or is otherwise unfavorably associated with, violations of privacy, data protection or information security requirements, it may subject us or our customers to public criticism and potential legal liability. Existing and potential laws, rules and regulations concerning privacy, data protection and information security and increasing sensitivity of consumers to unauthorized processing of personal data may create negative public reactions to technologies, products and services such as ours. Public concerns regarding personal data processing, privacy, data protection and information security may cause some of our customers' end users to be less likely to visit their websites or otherwise interact with them. If enough end users choose not to visit our customers' websites or otherwise interact with them, our customers could stop using our platform. This, in turn, may reduce the value of our service, and slow or eliminate the growth of our business, or cause our business to contract.

We may be the subject of legal proceedings which could have an adverse effect on our business, financial condition, and results of operations.

In the ordinary course of business, we may be involved in various litigation matters, including but not limited to commercial disputes, employee claims and class actions, and from time to time may be involved in governmental or regulatory investigations or similar matters arising out of our current or future business. Any claims asserted against us, regardless of merit or eventual outcome, could harm our reputation and have an adverse impact on our relationship with our customers, partners and other third parties and could lead to additional related claims. Certain claims may seek injunctive relief, which could disrupt the ordinary conduct of our business and operations or increase our cost of doing business. Our insurance or indemnities may not cover all claims that may be asserted against us, and any claims asserted against us, regardless of merit or eventual outcome, may harm our reputation and cause us to expend resources in our defense. Furthermore, there is no guarantee that we will be successful in defending ourselves in future litigation or similar matters under various laws. If judgments or settlements in any future litigation or investigation significantly exceed our insurance coverage, our business, financial condition, and results of operations could be adversely affected. For more information, see the section titled “Legal Proceedings” below.

If we fail to meet the service level commitments under our customer contracts, we could be obligated to provide credits for future service, or face contract termination with refunds of prepaid amounts related to unused subscriptions, which could adversely affect our business, financial condition, and results of operations.

Our customer agreements contain service level commitments, under which we guarantee specified availability of our platform, and time-bound resolutions to support inquiries. Any failure of or disruption to our infrastructure could make our platform unavailable to our customers. If we are unable to meet the stated service level commitments to our customers or suffer extended periods of unavailability of our platform, we may be contractually obligated to provide affected customers with service credits for future subscriptions, or customers could elect to terminate and receive refunds for prepaid amounts related to unused subscriptions. Any of the foregoing could adversely affect our business, financial condition, and results of operations.

Indemnity provisions in various agreements potentially expose us to substantial liability for intellectual property infringement and other losses.

Our agreements with customers, partners and other third parties may include indemnification or other provisions under which we agree to indemnify or otherwise be liable to them for losses suffered or incurred as a result of claims of intellectual property infringement, misappropriation or other violation, damages caused by us to property or persons, or other liabilities relating to or arising from the use of our platform or other acts or omissions. The term of these contractual provisions sometimes survives termination or expiration of the applicable agreement. As we continue to grow, the possibility of infringement claims and other intellectual property rights claims against us may increase. For any intellectual property rights indemnification claim against us or our customers, we will incur significant legal expenses and may have to pay damages, settlement fees, license fees or stop using technology found to be in violation of the third party’s rights. Large indemnity payments could harm our business, financial condition, and results of operations. We may also have to seek a license for the infringing or allegedly infringing technology. Such license may not be available on reasonable terms, if at all, and may significantly increase our operating expenses or may require us to restrict our business activities and limit our ability to deliver certain offerings. As a result, we may also be required to develop alternative non-infringing technology, which could require significant effort and expense or cause us to alter our platform, which could adversely affect our business, financial condition, and results of operations.

From time to time, customers require us to indemnify or otherwise be liable to them for breach of confidentiality, violation of applicable law or failure to implement adequate security measures with respect to their data stored, transmitted or accessed using our platform. Although we normally contractually limit our liability with respect to such obligations, the existence of such a dispute may have adverse effects on our customer relationship and reputation and we may still incur substantial liability related to them.

Any assertions by a third party, whether or not successful, with respect to such indemnification obligations could subject us to costly and time-consuming litigation, expensive remediation and licenses, divert management attention and financial resources, harm our relationship with that customer and other current and prospective customers, reduce demand for our platform, and adversely affect our brand, business, financial condition, and results of operations.

We may be subject to liability claims if we breach our contracts and our insurance may be inadequate to cover our losses.

We are subject to numerous obligations in our contracts with our customers and partners. Despite the procedures, systems and internal controls we have implemented to comply with our contracts, we may breach these commitments, whether through a weakness in these procedures, systems and internal controls, negligence or the willful act of an employee or contractor. Our insurance policies, including our errors and omissions insurance, may be inadequate to compensate us for the potentially significant losses that may result from claims arising from breaches of our contracts, disruptions in our service, including those caused by cybersecurity incidents, failures or disruptions to our infrastructure, catastrophic events and disasters or otherwise. In addition, such insurance may not be available to us in the future on economically reasonable terms, or at all. Further, our insurance may not cover all claims made against us and defending a suit, regardless of its merit, could be costly and divert management's attention.

A portion of our revenue is generated from sales to government entities, which subject us to a number of challenges and risks.

A portion of our revenue is generated from sales to governmental entities, and we have made, and may continue to make, investments to support future sales opportunities in the government sector. We estimate that we generated approximately 18% and 19% of our revenue from government entities for the years ended December 31, 2022 and 2021, respectively. Government demand for our platform and offerings could be impacted by budgetary cycles, and there may be governmental certification requirements for our platform. Further, we may be subject to audits and investigations regarding our governmental contracts, and any violations could result in penalties and sanctions, including termination of the contract, refunding or forfeiting payments, fines and suspension or disbarment from future government business. Selling to these entities can be highly competitive, expensive and time consuming, often requiring significant upfront time and expense without any assurance that we will successfully complete a sale. Government entities often require contract terms that differ from our standard arrangements and impose compliance requirements that are complicated, require preferential pricing, termination rights tied to funding availability, or are otherwise time consuming and expensive to satisfy. Government entities may also have statutory, contractual, or other legal rights to terminate contracts with our partners for convenience, for lack of funding, or due to a default, and any such termination may adversely impact our results of operations. If we undertake to meet special standards or requirements and do not meet them, we could be subject to increased liability from our customers or regulators. Even if we do meet such special standards, the additional costs associated with providing our platform and offerings to government entities could harm our margins. Moreover, changes in the underlying regulatory conditions that affect these types of customers could harm our ability to efficiently provide our platform to them and to grow or maintain our customer base. If we are unable to manage the risks related to contracting with government entities, our business, financial condition, and results of operations could be adversely affected.

Political developments in the United Kingdom, including the exit of the United Kingdom from the European Union, could adversely affect our business, financial condition, and results of operations.

We contract with our international customers via our subsidiary in the United Kingdom, ForgeRock Limited, and we derive a meaningful portion of our revenue from the United Kingdom, which is typically in British Pounds or Euros. Recent developments in the relationship between the United Kingdom and the European Union may have an adverse impact on our business and financial position, and results of operations and the currencies in which we transact business.

Following a referendum in June 2016, the United Kingdom withdrew from the European Union on February 1, 2020 (referred to as Brexit), and entered into a transition period to, among other things, negotiate an agreement with the European Union governing the future relationship between the European Union and the United Kingdom. Brexit created significant political and economic uncertainty in 2020 about the future relationship between the United Kingdom and the European Union, which in turn caused and continues to cause significant volatility in global financial markets and the value of the British Pound or other currencies, including the Euro.

While the E.U.-UK Trade and Cooperation Agreement was agreed on December 24, 2020 and ratified by the UK Parliament on December 30, 2020 shortly before the transition period ended on December 31, 2020, the ongoing impact of both Brexit and the E.U.-UK Trade and Cooperation Agreement, is unclear how these will impact economic conditions in the United Kingdom as well as global financial markets.

While the European Union Withdrawal Act retains relevant E.U. law as domestic UK law and the E.U.-UK Trade and Cooperation Agreement extended the transition period specifically for data transfers (the adequacy bridge), Brexit has nonetheless created uncertainty with regard to the regulation of data protection, immigration and taxation, among other issues, in the United Kingdom. For example, it is unclear how Brexit will affect how data transfers to and from the United Kingdom will be regulated in the future.

The uncertainty that Brexit has caused may result in new regulatory challenges or increased costs to our United Kingdom and global operations, all of which could adversely affect our business, financial condition, and results of operations.

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 penalties or significant fines and harm our business and reputation.

We are subject to the U.S. Foreign Corrupt Practices Act of 1977, as amended, or the FCPA, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, U.S. Travel Act, the U.K. Bribery Act 2010 and possibly other anti-corruption, anti-bribery and anti-money laundering laws in countries in which we conduct activities. Anti-corruption and anti-bribery laws have been enforced aggressively in recent years and are interpreted broadly and prohibit companies and their employees, agents, representatives, business partners, and third-party intermediaries from promising, authorizing, making or offering, directly or indirectly, improper payments or other benefits to recipients in the public or private sector. As we increase our international sales and business, our risks under these laws may increase.

In addition, we use third parties to sell our platform or offerings and conduct business on our behalf abroad. We, our employees, agents, representatives, business partners and third-party intermediaries may have direct or indirect interactions with officials and employees of government agencies or state-owned or affiliated entities and we may be held liable for the corrupt or other illegal activities of these employees, agents, representatives, business partners and third-party intermediaries, representatives, contractors, partners, and agents, even if we do not explicitly authorize such activities. These laws also require that we keep accurate books and records and maintain internal controls and compliance procedures designed to prevent any such actions. We have policies to address compliance with such laws, but cannot ensure that all our employees, agents, representatives, business partners and third-party intermediaries, will not take actions in violation of our policies and applicable law, for which we may be ultimately held responsible.

Any allegations or violation of the FCPA, other applicable anti-bribery, anti-corruption laws, or anti-money laundering laws could subject us to investigations, whistleblower complaints, sanctions, settlements, prosecution, and other enforcement actions, disgorgement of profits, significant fines, damages, injunctions, adverse media coverage, loss of export privileges, severe criminal or civil sanctions, suspension or debarment from government contracts and other consequences, any of which could have a material adverse effect on our reputation, business, financial condition, prospects and results of operations. Responding to any investigation or action will likely result in a materially significant diversion of management's attention and resources and significant defense costs and other professional fees.

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

In many cases, our business activities are subject to U.S. and international export control laws and regulations including the Export Administration Regulations, or EAR, and trade and economic sanctions maintained by the Office of Foreign Assets Control, or OFAC. As such, an export license may be required to export or reexport our software and services to certain countries and end-users, including to certain U.S. embargoed or sanctioned countries, governments, and persons and for certain end-uses. If we were to fail to comply with such export control laws and regulations, trade and economic sanctions, or other similar laws, we could be subject to both civil and criminal penalties, including substantial fines, possible incarceration for employees and managers for willful violations, and the possible loss of our export or import privileges. Obtaining the necessary export license for a particular sale or offering may not be possible and may be time-consuming and may result in the delay or loss of sales opportunities.

In addition, various countries regulate the import of certain software and technology using encryption, including through import permit and license requirements, and have enacted laws that could limit our ability to distribute our platform and offerings or could limit our end-customers' ability to implement our platform in those countries. Changes in our platform or changes in export and import regulations in such countries may create delays in the introduction of our platform and offerings into international markets, prevent our customers with international operations from deploying our platform globally, or in some cases, prevent or delay the export or import of our platform and offerings to certain countries, governments, or persons altogether. The following developments could result in decreased use of our platform and offerings by, or in our decreased ability to export or sell our platform and offerings to, existing or potential end-customers with international operations: any change in export or import laws or regulations, economic sanctions or related legislation; shift in the enforcement or scope of existing export, import or sanctions laws or regulations; or change in the countries, governments, persons, or technologies targeted by such export, import or sanctions laws or regulations. Any decreased use of our platform or offerings or limitation on our ability to export to or sell our platform or offerings in international markets could adversely affect our business, financial condition, and results of operations.

Our international operations may give rise to potentially adverse tax consequences.

Our income tax obligations are based in part on our corporate operating structure and intercompany arrangements, including the manner in which we develop, value, manage and use our intellectual property and the valuation of our intercompany transactions. Our existing corporate structure and intercompany arrangements have been implemented in a manner we believe is in compliance with current prevailing tax laws. The tax laws applicable to our business, including the laws of the United States and other jurisdictions, are subject to interpretation and certain jurisdictions are aggressively interpreting their laws in new ways in an effort to raise additional tax revenue. New income, sales, use or other tax laws, statutes, rules, regulations or ordinances could be enacted at any time. Those enactments could harm our business, financial condition, and results of operations. In addition, taxing authorities in these jurisdictions could impose additional tax, interest and penalties on us, claim that various withholding requirements apply to us or our subsidiaries or assert that benefits of tax treaties are not available to us or our subsidiaries. These events could require us or our customers to pay additional tax amounts on a prospective or retroactive basis, as well as require us or our customers to pay fines or penalties and interest for past amounts deemed to be due. If we raise our prices to offset the costs of these changes, existing and potential future customers may elect not to purchase our products in the future.

In addition, our intercompany relationships are subject to complex transfer pricing regulations administered by taxing authorities in various jurisdictions. The relevant taxing authorities may disagree with our current and historic determinations as to the value of assets sold or acquired or income and expenses attributable to specific jurisdictions. If such a disagreement were to occur, and our position were 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. In addition, changes to our corporate structure and intercompany agreements could impact our worldwide effective tax rate and adversely affect our financial condition and results of operations.

Changes in global and U.S. tax legislation may give rise to potentially harmful tax consequences.

There is also a high level of uncertainty in today's tax environment stemming from both global initiatives put forth by the Organization for Economic Co-operation and Development, or OECD, and unilateral measures being implemented by various countries due to a lack of consensus on these global initiatives. As an example, the OECD is advancing two proposals—Pillar One and Pillar Two—that revise the allocation of revenues to market jurisdiction based on customer jurisdiction rather than physical presence of the provider and ensure a minimal level of taxation, respectively. Further, certain countries have implemented or are considering implementing measures such as a digital services tax, or a minimum tax on gross income. The U.S. administration continues to discuss changes to the U.S. Internal Revenue Code that, if enacted, could materially impact our U.S. tax liability in future years. Additionally, further regulatory or legislative developments may also arise from the recently enacted Inflation Reduction Act of 2022. These measures and corresponding tariffs in response to such measures create additional tax liabilities and uncertainty. As a result, we may have to pay higher taxes in countries where such rules are applicable.

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

Under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, if a corporation undergoes an "ownership change," generally defined as a greater than 50% change (by value) in its equity ownership over a three year period, the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes, such as research tax credits and interest deduction carryover, to offset its post-change income may be limited. Any ownership change in the future could result in increased future tax liability. In addition, we may experience ownership changes in the future as a result of subsequent shifts in our stock ownership. As a result, if we earn net taxable income, our ability to use our pre-change net operating loss carryforwards to offset U.S. federal taxable income may be subject to limitations, which could potentially result in increased future tax liability to us. The impact of any limitations that may be imposed due to such ownership changes has not been determined as of December 31, 2022.

In addition, under the Tax Cuts and Jobs Act, or Tax Act, as modified by the Coronavirus Aid, Relief, and Economic Security Act, or the CARES Act, federal net operating losses incurred during our taxable years beginning after December 31, 2017 can be carried forward indefinitely, however, the deductibility of our federal net operating losses generated in such years will be limited to 80% of taxable income in the year utilized. Furthermore, our ability to use our net operating loss carryforwards is conditioned upon generating future U.S. federal taxable income. Since we do not know whether or when we will generate the U.S. federal taxable income necessary to use our remaining net operating loss carryforwards, certain of our net operating loss carryforwards generated could expire before use.

Any successful action by state, foreign or other authorities to collect additional or past indirect taxes, including sales tax and others could adversely affect our business, financial condition, and results of operations.

States, some local taxing jurisdictions, and foreign jurisdictions have differing rules and regulations governing indirect taxes such as sales and use taxes, value added taxes, or VAT, and goods and services taxes, and these rules and regulations are subject to varying interpretations that may change over time. In particular, the applicability of indirect taxes to our platform in various jurisdictions is unclear. We file indirect tax returns and collect indirect taxes in certain states within the United States and certain foreign jurisdictions as required by law, and we do not file and collect indirect or other similar taxes in certain other states, certain other foreign jurisdictions and on certain of the offerings that we provide on the basis that such taxes are not applicable. It is possible that we could face indirect tax audits and that one or more states, local jurisdictions or foreign authorities could seek to impose additional indirect or other tax collection and record-keeping obligations on us or may determine that such taxes should have, but have not been, paid by us. We could also be subject to audits in states, local and foreign jurisdictions for which we have not accrued tax liabilities. A successful assertion that we should be collecting additional indirect or other taxes on our service in jurisdictions where we have not historically done so and do not accrue for indirect taxes could result in substantial tax liabilities for past sales, discourage customers from purchasing our platform and offerings or otherwise adversely affect our business, financial condition, and results of operations.

We may face exposure to foreign currency exchange rate fluctuations.

Today, approximately half of our customer contracts are denominated in U.S. dollars. Over time, however, an increasing portion of our international customer contracts may be denominated in local currencies. In addition, the majority of our international costs are denominated in local currencies. As a result, fluctuations in the value of the U.S. dollar and foreign currencies may affect our results of operations when translated into U.S. dollars. We do not currently engage in currency hedging activities to limit the risk of exchange rate fluctuations. However, in the future, we may use derivative instruments, such as foreign currency forward and option contracts, to hedge certain exposures to fluctuations in foreign currency exchange rates. The use of such hedging activities may not offset any or more than a portion of the adverse financial effects of unfavorable movements in foreign exchange rates over the limited time the hedges are in place. Moreover, the use of hedging instruments may introduce additional risks if we are unable to structure effective hedges with such instruments.

Operating as a public company has and will require us to incur substantial costs and will require substantial management attention.

As a public company, we incur substantial legal, accounting and other expenses that we did not incur as a private company. For example, we are subject to the reporting requirements of the Exchange Act, the requirements of the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the rules and regulations of the SEC and the listing standards of the NYSE. The Exchange Act requires, among other things, we file annual, quarterly and current reports with respect to our business, financial condition, and results of operations. In addition, as a public company, we may be subject to stockholder activism, which can lead to additional substantial costs, distract management and impact the manner in which we operate our business in ways we cannot currently anticipate. As a result of disclosure of information in filings required of a public company, our business, financial condition, and results of operations have become and will continue to become more visible, which may result in threatened or actual litigation, including by competitors.

Certain members of our management team have limited experience managing a publicly traded company, and certain members joined us more recently. As such, our management team may not successfully or efficiently manage our growth as a public company subject to significant regulatory oversight and reporting obligations under the federal securities laws and the continuous scrutiny of securities analysts and investors. These new obligations and constituents will require significant attention from our senior management and could divert their attention away from the day-to-day management of our business, which could adversely affect our business, financial condition, and results of operations.

Risks Related to Ownership of Our Class A Common Stock

The dual-class structure of our common stock has the effect of concentrating voting control with those stockholders who held our capital stock (or options or other securities convertible into or exercisable for our capital stock) prior to the completion of our initial public offering, which will limit your ability to influence the outcome of important transactions, including a change in control.

Our Class B common stock has 10 votes per share, and our Class A common stock has one vote per share. As of December 31, 2022, our directors, executive officers, and holders of more than 5% of our common stock, and their respective affiliates, held in the aggregate over 60% of the combined voting power of our Class A common stock and Class B common stock. Because of the 10-to-one voting ratio between our Class B common stock and Class A common stock, the holders of our Class B common stock collectively will continue to control a majority of the combined voting power of our common stock and will therefore, if acting together, be able to control all matters submitted to our stockholders for approval until the earlier of (i) the 7th anniversary of the filing and effectiveness of our amended and restated certificate of incorporation, (ii) when the outstanding shares of our Class B common stock represent less than 5% of the combined voting power of our outstanding Class A common stock and Class B common stock, and (iii) the affirmative vote of the holders of 66-2/3% of the voting power of our outstanding Class B common stock. This concentrated control will limit or preclude your ability to influence corporate matters, including the election of directors, amendments of our organizational documents, and any merger, consolidation, sale of all or substantially all of our assets or other major corporate transactions requiring stockholder approval. In addition, this may prevent or discourage unsolicited acquisition proposals or offers for our capital stock that you may feel are in your best interest as one of our stockholders.

Future transfers by holders of shares of our Class B common stock generally result in those shares converting to Class A common stock, subject to limited exceptions, including but not limited to, transfers effected for estate planning purposes, to the extent the transferor retains voting power over the shares, and transfers among affiliates, to the extent the transferee continues to remain an affiliate. Shares of Class B common stock held by natural persons automatically convert into shares of Class A common stock upon the death or disability of the holder. The conversion of Class B common stock to Class A common stock will have the effect, over time, of increasing the relative voting power of those individual holders of Class B common stock who retain their shares in the long-term.

The market price of our Class A common stock may be volatile, and you could lose all or part of your investment.

The market price of our Class A common stock may be volatile and could be subject to fluctuations in response to various factors, some of which are beyond our control. These fluctuations could cause you to lose all or part of your investment in our Class A common stock. Factors that could cause fluctuations in the market price of our Class A common stock include the following:

- the Merger, the pendency of the Merger, or the failure to complete the Merger;
- price and volume fluctuations in the overall stock market from time to time;
- volatility in the market prices and trading volumes of technology stocks;
- changes in operating performance and stock market valuations of other technology companies generally, or those in our industry in particular;
- sales of shares of our common stock by us or our stockholders, as well as the anticipation of, expiration of, or releases, from market standoff agreements or lock-up agreements;
- failure of securities analysts to maintain coverage of us, changes in financial estimates by securities analysts who follow our company or our failure to meet these estimates or the expectations of investors;
- the financial projections we may provide to the public, any changes in those projections or our failure to meet those projections;
- announcements by us or our competitors of new offerings or platform features;
- the public's reaction to our press releases, other public announcements and filings with the SEC;
- rumors and market speculation involving us or other companies in our industry;
- short selling of our Class A common stock or related derivative securities;
- actual or anticipated changes in our results of operations or fluctuations in our results of operations; actual or perceived security breaches or incidents;
- actual or anticipated developments in our business, our competitors' businesses or the competitive landscape generally;
- announced or completed acquisitions of businesses, offerings or technologies by us or our competitors;
- developments or disputes concerning our intellectual property or other proprietary rights;
- litigation involving us, our industry, or both, or investigations by regulators into our operations or those of our competitors;
- new laws, regulations, rules or industry standards or new interpretations of existing laws, regulations, rules or industry standards applicable to our business;
- increased inflation throughout the economy, which is often accompanied by higher interest rates;
- changes in accounting standards, policies, guidelines, interpretations or principles;
- any significant change in our management; and
- general economic conditions and slow or negative growth of our markets.

In addition, if the market for technology stocks or the stock market in general experiences a loss of investor confidence, the market price of our Class A common stock could decline for reasons unrelated to our business, financial condition or results of operations. The market price of our Class A common stock might also decline in reaction to events that affect other companies in our industry even if these events do not directly affect us. In the past, following periods of volatility in the overall market and the market price of a particular company's securities, securities class action litigation has often been instituted against these companies. This litigation, if instituted against us, would result in substantial costs and a diversion of our management's attention and resources.

Recently, the stock markets in general, and the markets for technology stocks in particular, have experienced extreme volatility, including as a result of inflationary pressures, economic uncertainties, the COVID-19 pandemic, interest rate increases and broader global macroeconomic uncertainties. Furthermore, the market price of our Class A common stock may be adversely affected by third parties trying to drive down the price of our Class A common stock. Short sellers and others, some of whom post anonymously on social media, can negatively affect the market price of our Class A common stock and may be positioned to profit if the market price of our Class A common stock declines. These broad market and industry factors may seriously harm the market price of our Class A common stock, regardless of our operating performance.

The issuance of additional stock in connection with financings, acquisitions, investments, our equity compensation plans or otherwise will dilute all other stockholders.

Our amended and restated certificate of incorporation authorizes us to issue up to 1,000,000,000 shares of Class A common stock, up to 500,000,000 shares of Class B common stock and up to 100,000,000 shares of preferred stock with such rights and preferences as may be determined by our board of directors. Subject to compliance with applicable rules and regulations, we may issue shares of Class A common stock or securities convertible into shares of our Class A common stock from time to time in connection with a financing, acquisition, investment, our equity compensation plans or otherwise. Any such issuance could result in substantial dilution to our existing stockholders and cause the market price of our Class A common stock to decline.

Delaware law and provisions in our amended and restated certificate of incorporation and amended and restated bylaws could make a merger, tender offer or proxy contest difficult, thereby depressing the market price of our Class A common stock.

Our status as a Delaware corporation and the anti-takeover provisions of the Delaware General Corporation Law may discourage, delay or prevent a change in control by prohibiting us from engaging in a business combination with an interested stockholder for a period of three years after the date of the transaction in which the person became an interested stockholder, even if a change in control would be beneficial to our existing stockholders. In addition, our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that may make the acquisition of our company more difficult, including the following:

- our board of directors is classified into three classes of directors with staggered three-year terms, and directors are only able to be removed from office for cause;
- certain amendments to our amended and restated certificate of incorporation require the approval of at least 66 2/3% of the voting power of the outstanding shares of our stock entitled to vote generally in the election of directors, voting together as a single class;
- our dual class common stock structure provides holders of Class B common stock with the ability to significantly influence the outcome of matters requiring stockholder approval, even if they own significantly less than a majority of the shares of our outstanding capital stock;
- our stockholders are only able to take action at a meeting of stockholders and are not able to take action by written consent for any matter;
- our amended and restated certificate of incorporation does not provide for cumulative voting;
- vacancies on our board of directors are able to be filled only by our board of directors and not by stockholders;
- a special meeting of our stockholders may only be called by the chairperson of our board of directors, our Chief Executive Officer (or our President in the absence of a Chief Executive Officer) or a majority of the "whole board" of our board of directors, where the "whole board" is the total number of authorized directorships whether or not there exist any vacancies or other unfilled seats in previously authorized directorships;
- certain litigation against us can only be brought in Delaware;
- our amended and restated certificate of incorporation authorizes undesignated preferred stock, the terms of which may be established and shares of which may be issued without further action by our stockholders; and
- advance notice procedures apply for stockholders to nominate candidates for election as directors or to bring matters before an annual meeting of stockholders.

These provisions, alone or together, could discourage, delay or prevent a transaction involving a change in control of our company. These provisions could also discourage proxy contests and make it more difficult for stockholders to elect directors of their choosing and to cause us to take other corporate actions they desire, any of which, under certain circumstances, could limit the opportunity for our stockholders to receive a premium for their shares of our Class A common stock and could also affect the price that some investors are willing to pay for our Class A common stock.

We cannot predict the impact our dual class structure may have on the market price of our Class A common stock.

We cannot predict whether our dual class structure will result in a lower or more volatile market price of our Class A common stock or in adverse publicity or other adverse consequences. For example, certain index providers have restrictions on including companies with multiple-class share structures in certain of their indexes. In July 2017, FTSE Russell and Standard & Poor's announced that they would cease to allow most newly public companies utilizing dual or multi-class capital structures to be included in their indices. Affected indices include the Russell 2000 and the S&P 500, S&P MidCap 400, and S&P SmallCap 600, which together make up the S&P Composite 1500. Under these policies, our dual class capital structure would make us ineligible for inclusion in certain indices, and as a result, mutual funds, exchange-traded funds, and other investment vehicles that attempt to passively track those indices will not be investing in our stock. Because of our dual class structure, we will likely be excluded from certain of these indexes and we cannot assure you that other stock indexes will not take similar actions. Given the sustained flow of investment funds into passive strategies that seek to track certain indexes, exclusion from stock indexes would likely preclude investment by many of these funds and could make our Class A common stock less attractive to other investors. As a result, the market price of our Class A common stock could be adversely affected.

Our amended and restated bylaws designate a state or federal court located within the State of Delaware as the exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to choose the judicial forum for disputes with us or our directors, officers or employees.

Our amended and restated bylaws, which provide that, unless we consent in writing to the selection of an alternative forum, to the fullest extent permitted by law, the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, (iii) any action arising pursuant to any provision of the Delaware General Corporation Law, our amended and restated certificate of incorporation or our amended and restated bylaws or (iv) any other action asserting a claim that is governed by the internal affairs doctrine shall be the Court of Chancery of the State of Delaware (or, if the Court of Chancery does not have jurisdiction, the federal district court for the District of Delaware), in all cases subject to the court having jurisdiction over indispensable parties named as defendants.

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 bylaws further provide that the federal district courts of the United States will be the exclusive forum for resolving any complaints asserting a cause of action arising under the Securities Act of 1933, as amended, or the Securities Act. We note, however, that investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder, and that there is uncertainty as to whether a court would enforce this exclusive forum provision. If a court were to find either exclusive-forum provision in our amended and restated bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving the dispute in other jurisdictions, which could harm our business, financial condition, and results of operations.

If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about us, our business or our market, or if they change their recommendations regarding our Class A common stock adversely, the market price and trading volume of our Class A common stock 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, our business, our market or our competitors. The analysts' estimates are based upon their own opinions and are often different from our estimates or expectations. If any of the analysts who cover us change their recommendation regarding our Class A common stock adversely, provide more favorable relative recommendations about our competitors or publish inaccurate or unfavorable research about our business, the market price of our Class A common stock would likely decline. If few securities analysts commence coverage of us, or if one or more of these analysts cease coverage of us or fail to publish reports on us regularly, we could lose visibility in the financial markets and demand for our securities could decrease, which could cause the market price and trading volume of our Class A common stock to decline.

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

We have never declared nor paid cash dividends on our capital stock. We currently intend to retain any future earnings to finance the operation and expansion of our business, and we do not expect to declare or pay any dividends in the foreseeable future. Additionally, our ability to pay cash dividends on our common stock is limited by restrictions under the terms of our Amended and Restated Loan Agreement and the Merger Agreement. As a result, stockholders must rely on sales of their common stock after price appreciation, if any, as the only way to realize any future gains on their investment in our Class A common stock.

Item 1B. Unresolved Staff Comments

Not applicable.

Item 2. Properties

Our corporate headquarters are in San Francisco, California, where we lease approximately 17,000 square feet of office space as of December 31, 2022. We also have domestic offices in Texas and international offices in France, United Kingdom and Singapore. We lease all of our facilities. We believe that our facilities are adequate for our current needs and anticipate that suitable additional space will be readily available to accommodate any foreseeable expansion of our operations.

Item 3. Legal Proceedings

From time to time, we may be subject to legal proceedings and claims that arise in the ordinary course of business, as well as governmental and other regulatory investigations and proceedings. In addition, third parties may from time to time assert claims against us in the form of letters and other communications. Other than the litigation described below, we are not currently a party to any legal proceedings that, if determined adversely to us, would, in our opinion, have a material and adverse effect on our business, financial condition or results of operations. Future litigation may be necessary to defend ourselves, our partners and our customers, to determine the scope, enforceability, and validity of third-party intellectual property or proprietary rights or to establish and protect our intellectual property or proprietary rights. The results of any current or future litigation cannot be predicted with certainty and there can be no assurances that favorable outcomes will be obtained, and regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management attention and resources and other factors.

The following briefly describes legal proceedings and claims involving the Company.

Litigation Challenging the Merger

On November 28, 2022, a purported stockholder of the Company filed an action captioned *Ryan O'Dell v. ForgeRock, Inc., et al.*, Case No. 22-cv-10077 (the “O'Dell Action”), in the U.S. District Court for the Southern District of New York against the Company and certain of its current and former officers and directors, alleging violations of Sections 14(a) and 20(a) of the U.S. Securities Exchange Act of 1934 (the “Exchange Act”). The O'Dell Action generally alleged that the Company's definitive proxy statement filed in connection with the proposed acquisition of the Company by Thoma Bravo contained materially misleading disclosures and had material omissions. The O'Dell Action sought, among other things, to enjoin the proposed acquisition, unspecified compensatory damages, and attorneys' fees. The O'Dell Action was voluntarily dismissed with prejudice on January 17, 2023.

On December 13, 2022, a purported stockholder of the Company filed an action captioned *Joseph Post v. ForgeRock, Inc., et al.*, Case No. 22-cv-10516 (the “Post Action”), in the U.S. District Court for the Southern District of New York and, on December 14, 2022, another purported stockholder of the Company filed an action captioned *Matthew Jones v. ForgeRock, Inc., et al.*, Case No. 22-cv-01589 (the “Jones Action” and, collectively, with the O'Dell Action and the Post Action, the “Actions”), in the U.S. District Court for the District of Delaware, against the Company and certain of its current officers and directors, alleging violations of Sections 14(a) and 20(a) of the Exchange Act. The allegations and remedies sought in the Post Action and Jones Action are substantially similar to those in the O'Dell Action. The Jones Action was voluntarily dismissed on February 14, 2023. The Company believes the Actions are without merit and intends to defend against the one remaining action, the Post Action, vigorously.

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 for Our Common Stock

Our Class A common stock, \$0.001 par value per share, began trading on the NYSE under the symbol "FORG" on September 15, 2021. Prior to that time, there was no public market for our Class A common stock. Our Class B common stock is not listed or traded on any stock exchange.

Holders of Record

As of December 31, 2022, we had 45 holders of record of our Class A common stock and 71 holders of record of our Class B common stock. The actual number of Class A beneficial stockholders is substantially greater than the number of holders of record because a large portion of our Class A common stock is held by banks, brokers, other financial institutions and other nominees.

Dividend Policy

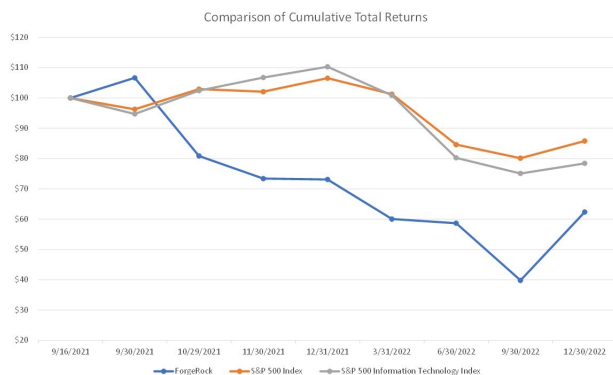
We have never declared or paid any cash dividends on our capital stock, and we do not currently intend to pay any cash dividends in the foreseeable future. We expect to retain future earnings, if any, to fund the development and growth of our business. Any decision to declare and pay dividends in the future will be made at the discretion of our Board and will depend on, among other things, our results of operations, financial condition, cash requirements, contractual restrictions and other factors that our Board may deem relevant. In addition, our ability to pay dividends is, and may be, limited by (i) covenants of existing and any future outstanding indebtedness we or our subsidiaries incur, including under the Amended Restated Plain English Growth Capital Loan and Security Agreement with TriplePoint Venture Growth BDC Corp. and TriplePoint Capital LLC, as amended (the "A&R Loan Agreement"); and (ii) forbearance covenants incurred under the Merger Agreement.

Securities Authorized for Issuance under Equity Compensation Plans

The information required by this item is incorporated by reference to the definitive proxy statement relating to our 2023 annual meeting of stockholders, which will be filed with the SEC no later than 120 days after December 31, 2022.

Stock Performance Graph

The following performance graph and related information shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that section or Sections 11 and 12(a)(2) of the Securities Act of 1933, as amended, and shall not be incorporated by reference into any registration statement or other document filed by us with the SEC, whether made before or after the date of this Annual Report on Form 10-K, regardless of any general incorporation language in such filing, except as shall be expressly set forth by specific reference in such filing. The following graph and related information shows a comparison of the cumulative total return for our common stock, Standard & Poor's 500 Index ("S&P 500 Index") and Standard & Poor's 500 Information Technology Index ("S&P 500 IT Index") between September 16, 2021 (the date our common stock commenced trading on the NYSE) through December 31, 2022. All values assume an initial investment of \$100 and reinvestment of any dividends. The comparisons are based on historical data and are not indicative of, nor intended to forecast, the future performance of our common stock.



Unregistered Sales of Equity Securities

None.

Use of Proceeds from Initial Public Offering

On September 20, 2021, we closed our IPO in which we sold 12,650,000 shares of Class A common stock at a public offering price of \$25.00 per share, including 1,650,000 shares pursuant to the exercise in full of the underwriters' option to purchase additional shares. We received net proceeds of \$289.7 million, after deducting underwriting discounts and commissions of \$21.3 million and offering expenses paid by us of approximately \$6.0 million, net of reimbursements. The offer and sale of all of the shares in the IPO were registered under the Securities Act pursuant to a registration statement on Form S-1 (File No. 333-259016), which was declared effective by the SEC on September 15, 2021. The representatives of the several underwriters of the IPO were Morgan Stanley & Co. LLC and J.P. Morgan Securities LLC. No offering expenses were paid directly or indirectly to any of our directors or officers (or their associates) or persons owning 10% or more of any class of our equity securities or to any other affiliates, other than payments in the ordinary course of business to officers for salaries and to non-employee directors pursuant to our director compensation policy.

There has been no material change in the planned use of proceeds from our IPO as described in our final prospectus filed with the SEC on September 17, 2021 pursuant to Rule 424(b)(4), subject to certain contractual restrictions set forth in the Merger Agreement. See the section titled "Risk Factors — Risks Related to the Proposed Merger" for additional information on such contractual obligations.

Issuer Purchases of Equity Securities

None.

Item 6. Reserved

Not applicable.

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 our consolidated financial statements and the related notes and other financial information included elsewhere in this Annual Report on Form 10-K, including information with respect to our plans and strategy for our business and forward-looking statements that involve risks and uncertainties. You should review the sections titled "Special Note Regarding Forward-Looking Statements" and "Risk Factors" for a discussion of forward-looking statements and important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis. Our fiscal years ended December 31, 2022 and 2021 are referred to herein as 2022 and 2021, respectively. We have omitted the financial results for the fiscal year ended December 31, 2020 where it would be redundant to the discussion previously included in Part II, Item 7 of our Annual Report on Form 10-K filed with the SEC on March 9, 2022, which discussion is hereby incorporated by reference herein.

Overview

Our vision is a world where you never log in again.

We help make the digital economy possible. ForgeRock supports billions of identities to help people simply and safely access the connected world—from shopping and banking to accessing company networks to get their work done. We make this possible through a unified and extensive identity platform to enable enterprises to provide exceptional digital user experiences without compromising security and privacy. This allows enterprises to deepen their relationships with customers and increase the productivity of their workforce and partners, while at the same time providing better security and regulatory compliance.

Our platform is purpose-built for the enterprise and provides mission-critical capabilities, including performance and scale, rich identity functionality, deployment flexibility, and extensive integration and interoperability. Our platform includes a full suite of identity functionality across Customer Identity Access Management (CIAM), Access Management (AM), Identity Governance Administration (IGA), and Autonomous Identity and Access, and a differentiated identity object modeling approach that supports all identity types. We enable enterprises to rapidly integrate and secure thousands of applications across types, deployments, and operating environments such as SaaS, mobile, microservices, web, and legacy, running in public and private cloud, and on-premise. Together, these deep capabilities enable us to provide enterprises with a single view of all their identities in one unified platform and position us as a leader in digital identity for the enterprise market.

We Generate Substantially All of Our Revenue From Subscriptions

Our revenue includes recurring revenue from term licenses, SaaS, and maintenance and support (which we refer to collectively as our subscription revenue). We generate substantially all of our revenue from the sale of subscriptions (which excludes perpetual licenses), which accounted for 95% and 96% of our total revenue in 2022 and 2021, respectively. We have significantly reduced our percentage of revenue from perpetual licenses to approximately 1% of our total revenue in 2022 and 2021. The remainder of our revenue is from professional services, which represented 5% and 3% of our total revenue in 2022 and 2021, respectively. We enable our customers to choose how they want to deploy our software in their heterogeneous environments, including self-managed environments such as public and private cloud environments, and through our SaaS offering, ForgeRock Identity Cloud, or a combination of both. Our subscription contracts are typically non-cancelable and non-refundable, and are largely billed annually upfront. Our weighted average new subscription term from new and existing customers in 2022 and 2021 was 33 months. Our pricing is generally based on the deployment method (SaaS or self-managed), products purchased, identity type (consumer, workforce, or IoT and services), and number of identities managed.

We Focus on Global Enterprises and Large Organizations, Who are Prioritizing Investments in Identity

Our go-to-market strategy is primarily focused on selling to large global enterprises, who are consistently investing in identity as a top priority. We focus our sales efforts on decision makers with a purview across the enterprise such as Chief Information Officers, or CIOs, Chief Information Security Officers, or CISOs, Chief Digital Officers, or CDOs, and Chief Technology Officers, or CTOs. We are also increasing our focus on line-of-business owners and developers as core stakeholders. We have been operating globally since our founding and 44% of our revenue in 2022 was generated from customers located in Europe, the Middle East and Africa, or EMEA, and the Asia-Pacific, or APAC, region, demonstrating the global demand for our offerings. Our customers are based in more than 50 countries and across a diverse set of industries such as financial services, public sector, technology, telecom and media, medical, services, retail, and manufacturing. Many of our customers are recognized as leaders in their respective industries or public sectors.

Our Go-to-Market Strategy is Driven by Close Collaboration Between Our Sales and Marketing Organizations and Our Partners

We primarily sell subscriptions through our direct sales teams located in geographic regions near our customers. Our sales and marketing organizations work closely to attract and drive awareness and engagement with prospective customers to help them understand our leadership in identity and our product differentiation, and to convert prospects into customers. Our marketing organization engages with prospective customers across physical and digital channels and provides them with solution guides, whitepapers, webinars, presentations, and other content to accelerate their understanding of our platform and drive greater adoption. We are highly focused on embracing and supporting our customers with the implementation of and utilization of our platform through dedicated customer success managers.

We also have a strong network of strategic global channel partners that both source and influence opportunities for us—providing leverage and execution capabilities across the globe. These strategic global channel partnerships not only provide us with a significant source of lead generation but also a global network of certified and trained implementation professionals. Our alliances, including global strategic consulting firms and global systems integrators, or GSIs, such as Accenture, Deloitte, and PwC, often promote our platform as part of large-scale digital transformation projects they drive by identifying opportunities in which our platform can help accelerate business initiatives and improve user experience. We also partner with leading regional consulting firms and implementation partners. These highly-skilled regional partners not only provide subject-matter expertise in the implementation of specific use cases, but they also act as an extension of our direct sales force by identifying and referring opportunities to us.

Our Customer Base Includes Many of the World's Leading Brands

Our global customer base includes direct and indirect customers, of which direct customers are those we contract with directly (whether sourced by us or through a partner or reseller), and indirect customers include customers that receive the benefit of using components of our software by contracting with certain third parties, such as resellers, system integrators, managed service providers, or other channel partners, as well as with original equipment manufacturers, or OEMs.

We focus on the number of large customers because it represents our ability to land-and-expand with large enterprises and the number of large customers is a key indicator of our ability to grow our business and revenue in future periods. We define a large customer as a customer with \$100,000 or greater ARR as of a measurement date. As of December 31, 2022 and 2021, we had 449 and 394 large customers with \$100,000 of ARR or greater, respectively, representing 93% and 90% of our total ARR as of such dates. No single customer accounted for more than 4% of our total ARR in 2022 and 3% of our total ARR in 2021 and 2020. No single customer accounted for more than 10% of our total revenue in 2022, 2021 and 2020.

We Have a Robust Land & Expand Model Enabled in Part by Our Flexible Purchasing Options

The breadth of our platform enables many entry points for new customers, and we enable them to purchase one or more product modules for their initial deployment and expand into new modules for additional functionality over time. We believe there is a significant opportunity for revenue expansion across our customer base as our customers increase the number of identities managed through our platform, expand across consumer, workforce and IoT and services use cases, subscribe to additional product offerings, and expand into additional deployments, such as our SaaS offering.

Our Business Has Experienced Strong Growth

We have experienced strong growth from a combination of internal drivers and external drivers. Internal drivers include the continuous innovation of our platform, resulting in new technology, products and deployment offerings, a loyal customer base that continues to increase their spend with us over time, and the acquisition of new customers. For example, we have developed and released our SaaS offering (ForgeRock Identity Cloud), Autonomous Identity and Access in the past two years and both new and existing customers have adopted these offerings. Our effective go-to-market model has also been a driver of our growth, aided by recent leadership recognition by industry analysts. We believe external drivers such as the increasing importance of identity to enterprises, identity being a key enabler of digital transformation, the growing cyber threat landscape and constantly evolving regulatory and compliance requirements are also driving our growth.

In 2022 and 2021 our ARR was \$229.6 million and \$183.1 million, respectively, representing a year-over-year growth rate of 25%. We generate substantially all of our revenue from subscriptions, with 95% and 96% of our total revenue coming from subscriptions in 2022 and 2021, respectively. In 2022 and 2021 our total revenue was \$217.5 million and \$176.9 million, respectively, representing a year-over-year growth rate of 23%. In the same periods, we incurred net losses of \$66.3 million and \$47.8 million, respectively.

Pending Merger

On October 10, 2022, we entered into the Merger Agreement with Parent and Merger Sub, pursuant to which Merger Sub will merge with and into ForgeRock and ForgeRock will continue as the surviving corporation in the Merger, as a wholly owned subsidiary of Parent. Parent and Merger Sub are affiliates of Thoma Bravo.

Under the Merger Agreement, at the effective time of the Merger, each issued and outstanding share of our Class A common stock and Class B common stock (except for certain shares specified in the Merger Agreement) will be canceled and automatically converted into the right to receive cash in an amount equal to \$23.25 per share, without interest.

Completion of the Merger remains subject to the satisfaction of certain terms and conditions set forth in the Merger Agreement, including (i) the absence of any order issued by any governmental entity of competent jurisdiction or any law applicable to the merger that, in each case, prevents, materially restrains, or materially impairs the consummation of the Merger; and (ii) the expiration or termination of the waiting period applicable to the Merger pursuant to the HSR Act, and the absence of any agreement with any governmental authority not to consummate the Merger.

On December 22, 2022, ForgeRock and Parent each received a Second Request from the DOJ in connection with the DOJ's review of the Merger. The issuance of the Second Request extends the waiting period under the HSR Act until 30 days after both ForgeRock and Parent have substantially complied with the Second Request.

On January 12, 2023, we received approval of the Merger Agreement by the affirmative vote of ForgeRock's stockholders holding a majority of the outstanding voting power of ForgeRock's common stock.

ForgeRock and entities affiliated with Thoma Bravo have entered into the Timing Agreement with the DOJ in connection with the Merger and the Second Request. Under the Timing Agreement, ForgeRock and Thoma Bravo have agreed that they will certify compliance with the Second Request no earlier than May 1, 2023, and will not consummate the Merger less than 75 days after compliance with the Second Request. The Timing Agreement does not prevent ForgeRock and Thoma Bravo from consummating the Merger sooner if the DOJ closes its investigation of the Merger before that date. The expiration or termination of the waiting period applicable to the Merger pursuant to the HSR Act (and the absence of any agreement with any governmental authority not to consummate the Merger) is the only remaining approval or regulatory condition required to consummate the closing of the Merger under the Merger Agreement.

Upon consummation of the Merger, we will cease to be a publicly traded company and our Class A common stock will be delisted from the New York Stock Exchange.

Factors Affecting Our Performance

We believe that our future performance will depend on many factors, including the following:

Acquiring New Customers

Our results of operations and growth depends in part on our ability to attract new customers and we believe there is a significant opportunity to grow our customer base. To date, we have primarily relied on our marketing efforts, direct sales, channel partners and alliances, industry recognition and referrals to attract new customers. While we believe we have a significant market opportunity and an effective go-to-market strategy to win new customers, we will need to continue to invest in partner and alliance leverage, digital marketing, and expand into new markets and new customer segments to maintain or accelerate our customer growth.

Expanding Usage by Existing Customers

Our business depends, in part, on the degree to which our land-and-expand strategy is successful. Our customers often initially adopt our platform for a specific use case, such as consumer identity, and subsequently increase their adoption as they realize the benefits and flexibility of our platform. We have been successful in expanding our existing customers' adoption of our platform as demonstrated by our dollar-based net retention rate, which we consider an indicator of our ability to retain and expand revenue from existing customers over time. We continue to invest in our customer success efforts to help our customers realize the full potential of our platform and expand their usage of our platform over time.

Innovating and Advancing Our Platform

We intend to continue to invest in our research and development to extend the capabilities of our digital identity platform. Our investments in research and development drive core technology innovation and bring new products to market. We intend to continue to enhance our platform by developing new products and expanding the functionality of existing products to maintain our technology leadership. For example, since the beginning of 2019, we released ForgeRock Identity Governance, ForgeRock Identity Cloud, and Autonomous Identity and Access. We have also strengthened our Trust Network of ecosystem partners that bring leading-edge authentication, biometrics, digital identity proofing, risk management, and other complementary technologies.

Expanding Strategic Partnerships and Alliances

Our growth depends in part on our ability to expand our strategic partnerships. We have four types of strategic alliances and partners: (1) GSIs and implementation partners, (2) OEM partners or customers who utilize components of our platform to deliver services, (3) strategic partners such as Google Cloud where ForgeRock is a premier partner for digital identity, and (4) Trust Network partners who provide complementary technologies that plug into our platform. Our partners help source and support relationships with new and existing customers, as well as provide technology and go-to-market benefits. We believe we have a meaningful opportunity to increase our revenue through strategic partners and our growth depends in part on the strength of these partnerships.

Mix of Multi-Year Subscription Licenses and SaaS, and Seasonality

Subscription term licenses are often deployed by our customers in public cloud environments such as AWS, GCP, or Azure. Under ASC 606, for self-managed term-based subscription licenses, we recognize approximately half of the total contract value of the portion upfront as license revenue, with the remainder attributable to maintenance and support that is recognized ratably over the license term. If the total contract value of our subscription term licenses increases as a percentage of total contract value of all our subscriptions, more revenue would be recognized upfront.

For our SaaS offering, the ForgeRock Identity Cloud, 100% of revenue is recognized ratably over the subscription term. If the total contract value of our SaaS subscriptions increases as a percentage of total contract value of all our subscriptions, less revenue would be recognized upfront.

For the reasons stated above, our revenue is affected by the overall growth in our business and changes in our revenue mix of self-managed subscriptions and SaaS subscriptions. As a result, our year-over-year growth rates for total revenue may not be comparable due to changes in revenue mix.

We also experience seasonality in our business which could continue to affect our financial results.

Key Business Metrics

Annual Recurring Revenue (ARR)

We believe that ARR is a key metric to measure our business performance because it is driven by our ability to acquire new customers and to maintain and expand our relationship with existing customers. We define ARR as the annualized value of all contractual subscription agreements as of the end of the period. To the extent that we are negotiating a renewal with a customer after the expiration of the subscription, we continue to include that revenue in ARR if we are actively in discussion with such an organization for a new subscription or renewal, or until such organization notifies us that it is not renewing its subscription. We perform this calculation on an individual customer basis by dividing the total dollar amount of the customer's contract by the total contract term stated in months and multiplying this amount by 12 to annualize. Calculated ARR for each individual customer is then aggregated to arrive at total ARR.

ARR does not have a standardized meaning and therefore may not be comparable to similarly titled measures presented by other companies. ARR should be viewed independently of revenue, deferred revenue and remaining performance obligations computed and/or disclosed in accordance with GAAP and is not intended to be combined with or to replace any of those items. Specifically, ARR, as calculated under the definition herein, does not adjust for the timing impact of revenue recognition for specific performance obligations identified within a contract. ARR is not a forecast and the active contracts at the date used in calculating ARR may or may not be extended by our customers.

The following chart sets forth our ARR as of the end of our last two years:

	As of December 31,				Change		
	2022		2021		Amount	Percent	
	(dollars in thousands)						
ARR	\$	229,600	\$	183,100	\$	46,500	25%

Dollar-Based Net Retention Rate

Our ability to drive growth and generate incremental revenue depends, in part, on our ability to maintain and grow our relationships with customers. An important way in which we track our performance in this area is by measuring the dollar-based net retention rate (our Net Retention Rate). We calculate our Net Retention Rate by first identifying customers (the Base Customers) in a particular quarter (the Base Quarter). We then divide the ARR in the same quarter of the subsequent year attributable to the Base Customers (the Comparison Quarter) by the ARR attributable to those Base Customers in the Base Quarter. Our Net Retention Rate captures any increase or decrease in ARR from the Base Customers from the Base Quarter to the Comparison Quarter. We expand our relationships with customers as they purchase more identities, add more use cases across consumer, workforce, and IoT and services, subscribe to additional product offerings, and add additional deployment options such as our SaaS offering.

The following table sets forth our Net Retention Rate as of the end of our last two years:

	As of December 31,		
	2022	2021	Change
Dollar-Based Net Retention Rate	113%	112%	1%

Number of Large Customers

We focus on the number of large customers because it represents our ability to land-and-expand with large enterprises and the number of large customers is a key indicator of our ability to grow our business and revenue in future periods. We define a large customer as a customer with \$100,000 or greater ARR as of a measurement date. We believe that our ability to increase the number of large customers on our platform is an indicator of our market penetration, the growth of our business, and our potential future business opportunities. Over time, large customers have constituted a greater share of our revenue, which has contributed to an increase in average revenue per customer. We define a customer as a separate and distinct buying entity, such as a company, an educational or government institution, or a distinct business unit of a large company that has an active contract with us or one of our partners to access our platform.

The following table sets forth our large customers as of the end of our last two years:

	As of December 31,		Change	
	2022	2021	Amount	Percent
	(dollars in thousands)			
Large Customers	449	394	55	14%

Non-GAAP Financial Measures

In addition to our results determined in accordance with GAAP, we believe the following non-GAAP financial measures are useful to investors in evaluating our operating performance and liquidity. We use non-GAAP financial measures to understand and evaluate our core operating performance and trends, to prepare our annual budget, to monitor and assess our liquidity, and to develop short-term and long-term operating plans. We believe that the non-GAAP financial measures we review are each a useful measure to us and to our investors because they provide consistency and comparability with our past performance and between periods, as these metrics generally eliminate the effects of the variability of certain charges and expenses that may not reflect our overall operating performance and liquidity. We believe that non-GAAP financial measures, when taken collectively with GAAP financial information, can be helpful to us and to investors because it provides consistency and comparability with past performance and assists in comparisons with other companies, some of which use similar non-GAAP financial information to supplement their GAAP results.

The non-GAAP financial information is presented for supplemental informational purposes only and should not be considered a substitute for financial information presented in accordance with GAAP and may be different from similarly-titled non-GAAP measures used by other companies. The principal limitation of these non-GAAP financial measures is that they exclude expenses that are required by GAAP to be recorded in our condensed consolidated financial statements. In addition, they are subject to inherent limitations as they reflect the exercise of judgment by our management about which expenses are excluded or included in determining these non-GAAP financial measures. A reconciliation is provided below for each non-GAAP financial measure to the most directly comparable financial measure stated in accordance with GAAP. Investors are encouraged to review the related GAAP financial measures and the reconciliation of these non-GAAP financial measures to their most directly comparable GAAP financial measures.

Non-GAAP Gross Profit and Non-GAAP Gross Margin

Gross profit is defined as GAAP revenue less cost of revenue and gross margin is GAAP gross profit as a percentage of total revenue. We define non-GAAP gross profit and non-GAAP gross margin as GAAP gross profit and GAAP gross margin, in each case adjusted to exclude stock-based compensation expense.

A reconciliation of Non-GAAP gross profit to GAAP gross profit, and non-GAAP gross margin to GAAP gross margin, is as follows:

	Year ended December 31,	
	2022	2021
	(dollars in thousands)	
Gross Profit	\$ 177,972	\$ 144,005
Add: Stock-based compensation included in cost of revenue	2,852	617
Non-GAAP gross profit	<u>\$ 180,824</u>	<u>\$ 144,622</u>
Gross margin	82%	81%
Non-GAAP gross margin	83%	82%

Non-GAAP Operating Loss and Non-GAAP Operating Margin

We define non-GAAP operating loss and non-GAAP operating margin as GAAP operating loss and GAAP operating margin, adjusted for stock-based compensation expense and acquisition-related costs.

A reconciliation of non-GAAP operating loss and non-GAAP operating margin to GAAP operating loss and GAAP operating margin, the most directly comparable GAAP measures, is as follows:

	Year ended December 31,	
	2022	2021
	<i>(dollars in thousands)</i>	
Operating loss	\$ (66,556)	\$ (28,441)
Add: Stock-based compensation expense	32,760	10,666
Add: Acquisition-related costs	6,173	—
Non-GAAP operating loss	\$ (27,623)	\$ (17,775)
Operating margin	(31 %)	(16 %)
Non-GAAP operating margin	(13 %)	(10 %)

Adjusted EBITDA

We define Adjusted EBITDA as operating loss, adjusted for depreciation, stock-based compensation expense and acquisition-related costs.

A reconciliation of Adjusted EBITDA to operating loss, the most directly comparable GAAP measure, is as follows:

	Year ended December 31,	
	2022	2021
	<i>(in thousands)</i>	
Operating loss	\$ (66,556)	\$ (28,441)
Add: Depreciation	1,064	1,061
Add: Stock-based compensation	32,760	10,666
Add: Acquisition-related costs	6,173	—
Adjusted EBITDA	\$ (26,559)	\$ (16,714)

Free Cash Flow

We define free cash flow as net cash used in operating activities less cash used for purchases of property and equipment.

A reconciliation of free cash flow to net cash used in operating activities, the most directly comparable GAAP measure, is as follows:

	Year ended December 31,	
	2022	2021
	<i>(in thousands)</i>	
Net cash used in operating activities	\$ (45,006)	\$ (36,783)
Purchases of property and equipment	(1,619)	(1,113)
Free cash flow	\$ (46,625)	\$ (37,896)
Net cash provided by (used in) investing activities	\$ 30,012	\$ (244,446)
Net cash provided by financing activities	15,899	310,512
Cash paid for interest	3,244	3,629

Components of Results of Operations

Revenue

We derive revenue primarily from subscriptions and, to a lesser extent, professional services and perpetual licenses.

Subscriptions and Perpetual Licenses. Subscriptions and perpetual licenses revenue consist of the following:

Subscription Term Licenses. We sell subscriptions for our solutions that are self-managed by our customer within our customer's IT infrastructure or cloud infrastructure. These subscriptions include licenses and technical support and access to new software updates on a when-and-if available basis. We recognize the license portion, which is approximately half of the total contract value, upon the later of the delivery of the software and commencement of the subscription term. The remainder is recognized ratably over the subscription term as support & maintenance revenue. We typically invoice our customers annually in advance.

Subscription SaaS, Support & Maintenance. We sell SaaS subscriptions for access to the ForgeRock Identity Cloud, our SaaS offering. We sell support and maintenance bundled with license in the self-managed software subscription offering, or as a standalone for the perpetual license support & maintenance renewal. For our SaaS offerings, we recognize revenue ratably over the period beginning on the latter of the commencement of the subscription term or the provisioning of the SaaS service, to the end of the subscription term. For support and maintenance, we recognize revenue ratably over the period beginning on the latter of the commencement of the subscription term or the delivery of the software to the end of the subscription term.

Perpetual Licenses. We also sell perpetual licenses to our self-managed solutions. Revenue from our perpetual licenses is recognized when the software is delivered or made available to the customer. Perpetual license revenue decreased by \$(1.2) million, or (70)%, in 2022 compared to 2021. In both 2022 and 2021, revenue from perpetual licenses represented less than 1% of our total revenue. This reflects a shift by our customers away from purchasing perpetual licenses in favor of subscription term licenses or SaaS subscriptions. We do not expect perpetual license revenue to be material in future periods.

Subscriptions and perpetual licenses revenue represented approximately 95% and 97% of our total revenue in 2022 and 2021, respectively. We expect that substantially all our revenue will be generated from subscriptions for the foreseeable future. Our subscriptions revenue may fluctuate due to the timing and relative mix between revenue from subscription term licenses and subscription SaaS, support & maintenance. Over time, we expect a greater percentage of our subscriptions and perpetual licenses revenue will come from our ForgeRock Identity Cloud offering. This will have a negative impact on our near-term revenue growth as SaaS subscription revenue is recognized ratably.

Professional Services. Professional services consist primarily of fees from professional services provided to our customers and partners to configure and optimize the use of our solutions, as well as training services or subscription related to the configuration and operation of our solutions. Our professional services are generally priced on a time and materials or fixed package basis and is generally invoiced upfront. Revenue from professional services is recognized as the service hours are used or milestones are achieved. Revenue from our training services is recognized on the date the services are completed. Revenue from training subscription is recognized ratably over the term of the subscription.

Revenue from professional services represented 5% and 3% of our total revenue in 2022 and 2021, respectively. We expect our professional services revenue to increase in absolute dollars as our business continues to grow, but we do not expect professional services revenue to fluctuate significantly as a percentage of total revenue over time.

Overhead Allocation and Employee Compensation Costs

We allocate shared costs, such as facilities costs (including rent, utilities and depreciation on assets shared by all departments) and certain information technology costs to all departments based on headcount. As such, allocated shared costs are reflected in each cost of revenue and operating expense category. Employee compensation costs include salaries, bonuses, benefits and stock-based compensation for each cost of revenue and operating expense category, sales commissions for sales and marketing and any compensation related taxes.

Cost of Revenue

Subscriptions and Perpetual Licenses. Subscriptions and perpetual licenses cost of revenue consists of personnel costs, including salaries, bonuses, and benefits, as well as stock-based compensation, for employees associated with our subscription offerings and customer support, allocated overhead costs, and third-party costs, including cloud infrastructure costs and other expenses directly associated with our customer support. We expect our subscriptions and perpetual licenses cost of revenue to increase in absolute dollars to the extent our subscriptions revenue increases. As a percentage of revenue, we expect subscriptions and perpetual licenses cost of revenue to increase as a percentage of total revenue in the near term as we grow our SaaS subscription business, but to decrease as a percentage of our total revenue over the long-term as our SaaS subscription revenue grows.

Professional Services. Professional services cost of revenue consists of personnel costs, including salaries, bonuses and benefits, as well as stock-based compensation, for employees associated with our professional services and training services, allocated overhead costs, and third-party costs, including other costs directly associated with our professional and training services. We expect our professional services cost of revenue to increase in absolute dollars as our business continues to grow. As a percentage of revenue, we expect professional services cost of revenue to fluctuate over time as we continue to invest in our growth. The cost of providing professional services has historically been higher than the associated revenue we generate, as we use professional services to help drive customer success and increased subscriptions and perpetual licenses revenue.

Gross Profit and Gross Margin

Gross profit (revenue less cost of revenue) and gross margin (gross profit as a percentage of total revenue) have been and will continue to be affected by various factors, including the timing of our acquisition of new customers and the renewal of and expansion of sales to existing customers, the mix between revenue from subscription term licenses and subscription SaaS, support & maintenance, the costs associated with operating our platform, the extent to which we expand our customer support team, and the extent to which we can increase the efficiency of our technology and infrastructure through technological improvements. We expect our gross profit to increase in absolute dollars as total revenue increases but our gross margin to decrease as we invest further in our cloud-based infrastructure to support our subscription SaaS offering. We expect subscriptions and perpetual licenses cost of revenue to increase consistently with the growth in our subscriptions and perpetual licenses revenue, although our gross margin could fluctuate from period-to-period.

Operating Expenses

Our operating expenses consist of research and development, sales and marketing, and general and administrative expenses. Personnel costs are the most significant component of operating expenses and consist of salaries, benefits, bonuses, payroll taxes, stock-based compensation expense and, with regard to sales and marketing expenses, sales commissions.

Research and Development. Research and development expenses primarily consist of personnel costs, outside consultants, and overhead. We focus our research and development efforts on developing new solutions, core technologies, and to further enhance the functionality, reliability, performance and flexibility of existing solutions. We expect our research and development expenses will increase in absolute dollars as our business grows. However, we expect our research and development expenses will decrease as a percentage of total revenue over the long-term, although they may fluctuate as a percentage of total revenue from period-to-period depending on the timing of expenses.

Sales and Marketing. Sales and marketing expenses primarily consist of personnel costs, costs of general marketing and promotional activities, travel-related expenses, and overhead. Certain sales commissions earned by our sales force on subscription contracts are deferred and amortized over the period of benefit which is generally four to five years. We expect to continue to invest in our sales force domestically and internationally, as well as in our channel relationships. We expect our sales and marketing expenses to increase in absolute dollars and continue to be our largest operating expense category for the foreseeable future. However, we expect our sales and marketing expenses will decrease as a percentage of total revenue over the long-term, although they may fluctuate as a percentage of total revenue from period-to-period depending on the timing of expenses.

General and Administrative. General and administrative expenses consist primarily of personnel costs associated with our executive, human resource, legal, facilities, accounting and finance, information security, and information technology departments. In addition, general and administrative expenses include third-party professional fees and overhead. We expect that our general and administrative expenses will increase in absolute dollars as our business grows. Our general and administrative expenses have increased as a result of, among other things, costs to comply with the rules and regulations applicable to companies listed on a national securities exchange, costs related to compliance and reporting obligations pursuant to the rules and regulations of the SEC, including regarding internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act, and increased expenses for insurance, investor relations and professional services. However, we expect that our general and administrative expenses will decrease as a percentage of total revenue over the long-term, although they may fluctuate as a percentage of total revenue from period-to-period depending on the timing of expenses.

Acquisition-related costs. Acquisition-related costs primarily consist of legal and professional service fees incurred as part of the Company's proposed acquisition by Thoma Bravo.

Interest and Other Income (Expense), Net

Interest Expense. Interest expense consists primarily of interest payments on our outstanding borrowings under our Credit Facilities as well as the amortization of associated deferred financing costs. See "Liquidity and Capital Resources" for additional information.

Other Income (Expense), Net. Other income (expense), net primarily consists of gains and losses from foreign currency transactions denominated in a currency other than the functional currency, fair value changes on a preferred stock tranche option and warrants, and interest income. We expect our exposure to fluctuations in foreign currencies will increase as we continue to expand our business internationally.

Provision for Income Taxes

Provision for income taxes consists primarily of income taxes related to U.S. federal and state income taxes and income taxes in foreign jurisdictions in which we conduct business.

Results of Operations

The following tables set forth our results of operations for the periods presented:

	Year ended December 31,	
	2022	2021
	(in thousands)	
Revenue:		
Subscription term licenses	\$ 87,292	\$ 84,611
Subscription SaaS, support & maintenance	119,003	85,434
Perpetual licenses	515	1,695
Total subscriptions and perpetual licenses	206,810	171,740
Professional services	10,702	5,193
Total revenue	217,512	176,933
Cost of revenue:		
Subscriptions and perpetual licenses	27,768	17,535
Professional services	11,772	15,393
Total cost of revenue	39,540	32,928
Gross profit	177,972	144,005
Operating expenses:		
Research and development	61,837	43,497
Sales and marketing	118,794	88,620
General and administrative	57,724	40,329
Acquisition-related costs	6,173	—
Total operating expenses	244,528	172,446
Operating loss	(66,556)	(28,441)
Foreign currency gain (loss)	2,568	(3,819)
Fair value adjustment on warrants and preferred stock tranche option	—	(10,068)
Interest expense	(3,577)	(4,516)
Other income (expense), net	2,971	(40)
Interest and other expense, net	1,962	(18,443)
Loss before income taxes	(64,594)	(46,884)
Provision for income taxes	1,678	884
Net loss	\$ (66,272)	\$ (47,768)

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

	Year ended December 31,	
	2022	2021
	(in thousands)	
Cost of revenue	\$ 2,852	\$ 617
Research and development	6,738	1,924
Sales and marketing	12,044	3,495
General and administrative	11,126	4,630
Total stock-based compensation	\$ 32,760	\$ 10,666

The following table sets forth our results of operations for the periods presented as a percentage of our total revenue:

	Year ended December 31,	
	2022	2021
Revenue:		
Subscription term licenses	40%	48%
Subscription SaaS, support & maintenance	55%	48%
Perpetual licenses	0%	1%
Total subscriptions and perpetual licenses	95%	97%
Professional services	5%	3%
Total revenue	100%	100%
Cost of revenue:		
Subscriptions and perpetual licenses	13%	10%
Professional services	5%	9%
Total cost of revenue	18%	19%
Gross profit	82%	81%
Operating expenses:		
Research and development	28%	25%
Sales and marketing	55%	50%
General and administrative	27%	23%
Acquisition-related costs	3%	—%
Total operating expenses	113%	98%
Operating loss	(31)%	(17)%
Foreign currency gain (loss)	1%	(2)%
Fair value adjustment on warrants and preferred stock tranche option	—%	(6)%
Interest expense	(2)%	(3)%
Other income (expense), net	1%	0%
Interest and other expense, net	0%	(11)%
Loss before income taxes	(31)%	(28)%
Provision for income taxes	1%	0%
Net loss	(32)%	(28)%

Comparison of the Years Ended December 31, 2022 and 2021

Revenue	Year ended December 31,		Change	
	2022	2021	Amount	Percent
(dollars in thousands)				
Revenue:				
Subscription term licenses	\$ 87,292	\$ 84,611	\$ 2,681	3%
Subscription SaaS, support & maintenance	119,003	85,434	33,569	39%
Perpetual licenses	515	1,695	(1,180)	(70)%
Total subscriptions and perpetual licenses	206,810	171,740	35,070	20%
Professional services	10,702	5,193	5,509	106%
Total revenue	\$ 217,512	\$ 176,933	\$ 40,579	23%

Total revenue increased by \$40.6 million, or 23%, in 2022 compared to 2021.

Subscriptions and perpetual licenses revenue increased by \$35.1 million, or 20%, in 2022 compared to 2021. Subscription term licenses revenue increased by \$2.7 million, or 3%, in 2022 compared to 2021. Subscription SaaS, support & maintenance revenue increased by \$33.6 million, or 39%, in 2022 compared to 2021. The increases in subscription term licenses and subscription SaaS, support & maintenance revenue were driven by the addition of new customers as well as an increase in identities, use cases, product modules, and deployments from existing customers. SaaS, support and maintenance revenue increased due to the steady growth of the installment base, as well as the increased adoption of our SaaS offerings.

Professional services revenue increased by \$5.5 million, or 106%, in 2022 compared to 2021. There was an increase in the service activity for cloud onboarding and self-managed software in 2022 compared to the prior year.

Cost of Revenue, Gross Profit and Gross Margin

	Year ended December 31,		Change	
	2022	2021	Amount	Percent
<i>(dollars in thousands)</i>				
Cost of revenue:				
Subscriptions and perpetual licenses	\$ 27,768	\$ 17,535	\$ 10,233	58%
Professional services	11,772	15,393	(3,621)	(24)%
Total cost of revenue	<u>\$ 39,540</u>	<u>\$ 32,928</u>	<u>\$ 6,612</u>	20%
Gross margin:				
Subscriptions and perpetual licenses	87%	90%		
Professional services	(10)%	(196)%		
Total gross margin	82%	81%		

Cost of revenue increased by \$6.6 million, or 20%, in 2022 compared to 2021. Subscriptions and perpetual licenses cost of revenue increased by \$10.2 million, or 58% in 2022 compared to 2021, primarily due to a 22% increase in headcount and related personnel costs, which includes \$1.7 million of stock-based compensation expense. The increase in headcount supports the growth of our offerings, ongoing maintenance for our expanding customer base and our investment in cloud infrastructure costs for our ForgeRock Identity Cloud offering. An increase in Google Cloud expenses of \$2.4 million is driven by an increase in the number of customers using the Company's SaaS offering on Google's platform. Professional services cost of revenue decreased by \$3.6 million, or 24%, in 2022 compared to 2021, primarily due to a decrease of \$1.3 million in payroll costs for certain employees whose nature of work has evolved from directly supporting customers to now being directly aligned with our Sales & Marketing efforts around customer renewals and churn mitigation.

Gross margin for subscriptions and perpetual licenses was 87% compared to 90% in 2022 and 2021, respectively. The decrease in gross margin for subscriptions and perpetual licenses was due to investments to support the anticipated growth in new customers. While our gross margins for subscription and perpetual licenses revenue may fluctuate in the near-term as we invest in our growth, we expect our subscription revenue gross margin to stabilize over the long-term as we achieve additional economies of scale. Gross margin for professional services increased to (10)% in 2022 from (196)% in 2021. The improvement in gross margin for professional services was primarily due to an increase in revenue from professional services delivery.

Operating expenses

	Year ended December 31,		Change	
	2022	2021	Amount	Percent
<i>(dollars in thousands)</i>				
Operating expenses:				
Research and development	\$ 61,837	\$ 43,497	\$ 18,340	42%
Sales and marketing	118,794	88,620	30,174	34%
General and administrative	57,724	40,329	17,395	43%
Acquisition-related costs	6,173	—	6,173	100%
Total operating expenses	<u>\$ 244,528</u>	<u>\$ 172,446</u>	<u>\$ 72,082</u>	42%

Research and development. Research and development expenses increased \$18.3 million, or 42%, in 2022 compared to 2021. The increase was primarily due to an increase of \$12.0 million in personnel costs related to higher headcount to support our continued research and development efforts in enhancing our offerings, including \$4.8 million in stock-based compensation expense. Other increases include a \$2.6 million increase in IT outsourcing costs related to our cloud strategy and a \$2.1 million increase in professional fees.

Sales and marketing. Sales and marketing expenses increased \$30.2 million, or 34%, in 2022 compared to 2021. The increase was primarily due to an increase of \$21.8 million in personnel costs, including \$8.5 million in stock-based compensation expense related to the expansion of our sales force and our marketing department. Additionally, there was also a \$1.9 million increase in marketing costs as we increase awareness campaigns. Moreover, there was a \$3.7 million increase in travel-related expenses due to the easing of COVID-19 pandemic travel restrictions.

General and administrative. General and administrative expenses increased \$17.4 million, or 43%, in 2022 compared to 2021. The increase was primarily due to an increase of \$10.0 million in personnel costs, including \$6.5 million in stock-based compensation expense due to a higher headcount. There was also a \$6.3 million increase in third-party professional fees, insurance and related costs of becoming a public company.

Acquisition-related costs. Acquisition-related costs increased by \$6.2 million in 2022 compared to 2021. The increase was related to accruals of professional service and legal fees related to the proposed acquisition of the Company by Thoma Bravo.

Interest and other expense, net

	Year ended December 31,		Change	
	2022	2021	Amount	Percent
<i>(dollars in thousands)</i>				
Interest and other expense, net:				
Foreign currency (loss) gain	\$ 2,568	\$ (3,819)	\$ 6,387	(167)%
Fair value adjustment on warrants and preferred stock tranche option	—	(10,068)	10,068	(100)%
Interest expense	(3,577)	(4,516)	939	(21)%
Other, net	2,971	(40)	3,011	(7528)%
Total interest and other expense, net	<u>\$ 1,962</u>	<u>\$ (18,443)</u>	<u>\$ 20,405</u>	(111)%

Interest and other expense, net, decreased \$20.4 million, or (111)%, in 2022 compared to 2021.

We recorded a net foreign currency gain of \$2.6 million in 2022 compared to a net foreign currency loss of \$3.8 million in 2021, primarily due to fluctuations in foreign currency remeasurement on intercompany balances denominated in Norwegian krone, Euros and the British pound. On September, 30, 2021, we reclassified certain intercompany balances considered long-term in nature. Accordingly, foreign currency remeasurement gains and losses related to these balances are being reported in the accumulated other comprehensive income in stockholders' equity (deficit) on the consolidated balance sheet effective October 1, 2021.

In 2022, we did not record a fair value mark-to-market adjustment, compared to an adjustment of \$(10.1) million in 2021 relating to a preferred stock tranche option to purchase Series E-1 preferred shares held by one of our Series E preferred stock investors totaling \$4.2 million and certain outstanding warrants of \$5.9 million. The option was exercised in April 2021 and certain warrants were exercised in September 2021.

Interest expense decreased by \$0.9 million in 2022 compared to 2021, due to lower interest rates under our debt agreements as amended, effective September 16, 2021.

Other, net increased by \$3.0 million primarily due to an increase in interest income from higher average investment balances due to the proceeds from the IPO and higher returns on investments as a result of rising interest rates.

Provision For Income Taxes

In 2022, we recorded a provision for income taxes of \$1.7 million and \$0.9 million in 2022 and 2021, respectively. In 2022 and 2021, the federal statutory income tax rate of 21% differs from the effective tax rate primarily due to the valuation allowance against related deferred taxes. Our valuation allowance was \$91.3 million and \$65.4 million as of December 31, 2022 and 2021, respectively.

Liquidity and Capital Resources

As of December 31, 2022, our principal sources of liquidity were cash, cash equivalents and short-term investments of \$336.1 million, which were held for working capital purposes. In September 2021 and April 2021, we received \$295.7 million and \$20.0 million, respectively, of net cash proceeds from the IPO and exercise of a preferred stock tranche option that was exercised by one of our investors. Our cash equivalents were comprised primarily of money market funds and our short-term investments were comprised of marketable securities. We have generated significant operating losses and negative cash flows from operations as reflected in our accumulated deficit and consolidated statements of cash flows. We expect to continue to incur operating losses and negative cash flows from operations for the foreseeable future.

In September 2021, we executed an amendment to the Amended Restated Plain English Growth Capital Loan and Security Agreement with TriplePoint Venture Growth BDC Corp. and TriplePoint Capital LLC, or the amended "A&R Loan Agreement". The amended A&R Loan Agreement became effective once the registration statement in connection with the initial public offering was declared effective on September 16, 2021. The key provisions of the amendment include: (1) a covenant requiring the maintenance of a \$20.0 million cash balance, (2) change in the interest rate for outstanding term loan to be eight percent (8.00%) per annum on the existing loans, (3) extension of the maturity dates by twenty-four months, (4) change in the prepayment penalties and (5) a change in the prepayment premium. The principal will be due at the end of the term of the respective advance. As of December 31, 2022, the balance outstanding under our term loan facility was \$40.0 million and is included in long-term debt on our consolidated balance sheet, with the first principal repayment of \$30.0 million due in 2025.

We believe our existing cash, cash equivalents, short-term investments and cash provided by sales of our products and services will be sufficient to meet our working capital and capital expenditure needs for at least the next 12 months following the date of this report. We use our cash for a variety of needs, including but not limited to ongoing investments in our business, strategic acquisitions, capital expenditures, investment in our infrastructure, including non-cancellable purchase commitments, and debt repayment obligations. Our future capital requirements will depend on many factors, including our licenses growth rate, licenses renewal activity, billing frequency, the timing and extent of spending required to support development efforts, the expansion of sales and marketing activities, the introduction of new and enhanced product offerings, the continuing market adoption of our platform and further investment in general and administrative functions to meet the compliance requirements of being a public company. We may in the future enter into arrangements to acquire or invest in complementary businesses, services and technologies, including intellectual property rights. We may be required to seek additional equity or debt financing. In the event that additional financing is required from outside sources, we may not be able to raise it on terms acceptable to us or at all. If we are unable to raise additional capital or generate cash flows necessary to expand our operations and invest in new technologies this could reduce our ability to compete successfully and harm our business, financial condition, and results of operations.

All of our obligations under our term loan facility are guaranteed by ForgeRock US, Inc. and ForgeRock Limited and, subject to certain exceptions, secured by a security interest in substantially all of our assets, excluding intellectual property, which is subject to a negative pledge.

A significant majority of our customers pay in advance for their subscriptions. Therefore, a substantial source of our cash is from our deferred revenue, which is included on our consolidated balance sheet as a liability. Deferred revenue consists of the unearned portion of billed fees for our subscriptions, which is recognized as revenue in accordance with our revenue recognition policy. As of December 31, 2022, we had deferred revenue of \$83.3 million, of which \$82.0 million is recorded as a current liability and is expected to be recorded as revenue in the next 12 months, provided all other revenue recognition criteria have been met.

In the ordinary course of business, the Company enters into various purchase commitments primarily related to third-party cloud hosting and data services, information technology operations and marketing events. Total noncancelable purchase commitments as of December 31, 2022 were approximately \$50.9 million through December 31, 2024 of which \$25.9 million are due in the year ending December 31, 2023.

Merger Agreement

On October 10, 2022, we entered into the Merger Agreement. We have agreed to various representations, warranties, covenants and agreements, including, among others, agreements to conduct our business in the ordinary course during the period between the execution of the Merger Agreement and the effective time of the Merger. If the Merger Agreement is terminated in certain circumstances, including by us in order to enter into a superior proposal or by Parent because the Board withdraws its recommendation in favor of the Merger, we would be required to pay Parent a termination fee of \$60.0 million. In addition, without the consent of Parent, we may not take, authorize, agree or commit to do certain actions outside of the ordinary course of business, including incurring material capital expenditures above specified thresholds, or issuing additional debt. We do not believe that the restrictions in the Merger Agreement will prevent us from meeting our debt obligations, ongoing costs of operations, working capital needs or capital expenditure requirements.

Cash Flows

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

	Year ended December 31,	
	2022	2021
	<i>(in thousands)</i>	
Cash used in operating activities	\$ (45,006)	\$ (36,783)
Cash used provided by (used in) investing activities	30,012	(244,446)
Cash provided by financing activities	15,899	310,512
Effects of changes in foreign currency exchange rates on cash and cash equivalents	1,982	(888)
Net increase in cash, cash equivalents and restricted cash	\$ 2,887	\$ 28,395

Operating activities

Our largest source of operating cash is cash collections from our customers for subscription, support and maintenance services. Our primary uses of cash from operating activities are for employee-related expenditures, research, development, marketing expenses and third-party hosting costs. Historically, we have generated negative cash flows from operating activities and have supplemented working capital requirements through net proceeds from the sale of equity securities and term loans.

During the twelve months ended December 31, 2022 cash used in operating activities was \$(45.0) million primarily due to our net loss of \$(66.3) million and net cash outflows of \$(28.5) million used in our operating assets and liabilities. Non-cash charges primarily consisted of amortization of deferred commissions of \$15.2 million driven by the timing of revenue recognition, and stock-based compensation of \$32.8 million. The primary drivers of the changes in operating assets and liabilities related to a change in deferred commissions of \$(21.5) million driven by the timing of commission payments, a \$(5.1) million change in contract and other non-current assets due to the issuance of invoices and timing of revenue recognition, a \$(13.4) million change in accounts receivable, a \$7.4 million change in accrued expenses and other liabilities due to the timing of cash disbursements and a \$5.6 million change in deferred revenue.

During the twelve months ended December 31, 2021 cash used in operating activities was \$(36.8) million primarily due to our net loss of \$(47.8) million and net cash outflows of \$(31.3) million used in our operating assets and liabilities. Non-cash charges primarily consisted of amortization of deferred commissions of \$14.0 million driven by the timing of revenue recognition, and stock-based compensation of \$10.7 million. The primary drivers of the changes in operating assets and liabilities related to a change in deferred commissions of \$(23.3) million driven by the timing of commission payments, a \$(10.5) million change in contract and other non-current assets due to the issuance of invoices and timing of revenue recognition, a \$(20.7) million change in accounts receivable, a \$10.9 million change in accrued expenses and other liabilities due to the timing of cash disbursements and a \$20.0 million change in deferred revenue.

Investing activities

Net cash provided by investing activities during the twelve months ended December 31, 2022 of \$30.0 million was primarily attributable to maturities of short-term investments of \$158.6 million and sales of short-term investments of \$39.4 million and partially offset by purchases of short-term investments of \$166.4 million and purchases of property and equipment of \$1.6 million.

Net cash used in investing activities during the twelve months ended December 31, 2021 of \$(244.4) million was primarily attributable to purchases of short-term investments of \$277.1 million, purchases of property and equipment of \$1.1 million, and partially offset by maturities of short-term investments of \$31.9 million.

Financing activities

Cash provided by financing activities during the twelve months ended December 31, 2022 was \$15.9 million primarily as a result of proceeds from the exercise of employee stock options of \$12.2 million and employee stock plan purchases of \$7.0 million, partially offset by \$3.2 million employee payroll taxes paid for net shares settlement of restricted stock units.

Cash provided by financing activities during the twelve months ended December 31, 2021 was \$310.5 million primarily as a result of proceeds consisting of \$295.7 million of aggregate net proceeds from our IPO, net of underwriting discounts and commissions and offering costs paid, the issuance of Series E-1 convertible preferred stock of \$20.0 million and proceeds from the exercise of employee stock options of \$4.9 million partially offset by \$3.9 million employee payroll taxes paid for net shares settlement of restricted stock units on IPO and \$6.0 million paid for offering costs.

JOBS Act Accounting Election

The JOBS Act permits an emerging growth company to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies. On June 30, 2022, the last day of the Company's second fiscal quarter in 2022, the market value of the Company's common stock held by non-affiliates exceeded \$700 million. Accordingly, the Company was deemed a large accelerated filer as of December 31, 2022 and can no longer take advantage of the extended timeline to comply with new or revised accounting standards applicable to public companies beginning with this Annual Report on Form 10-K.

Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of these financial statements requires management to make estimates and judgments that affect the reported amounts of assets and liabilities, revenue and expenses and related disclosures of contingent assets and liabilities at the date of our financial statements. Actual results may differ from these estimates under different assumptions or conditions, impacting our reported results of operations and financial condition.

Certain accounting policies involve significant judgments and assumptions by management, which have a material impact on the carrying value of assets and liabilities and the recognition of income and expenses. Management considers these accounting policies to be critical accounting policies. The estimates and assumptions used by management are based on historical experience and other factors, which are believed to be reasonable under the circumstances. The significant accounting policies which we believe are the most critical to aid in fully understanding and evaluating our reported financial results are described below. Refer to "Note 2 — Summary of Significant Accounting Policies" to the consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K for more detailed information regarding our significant accounting policies.

Revenue Recognition

We recognize revenue under ASC 606. In accordance with ASC 606, revenue is recognized when promised goods or services are transferred to a customer. The amount of revenue recognized reflects the consideration that we expected to be entitled to receive in exchange for these goods or services. We recognize revenue from contracts with customers using the five-step method described in Note 2 of the notes to our consolidated financial statements, included in Part II, Item 8 of this Annual Report on Form 10-K for more detailed information regarding our significant accounting policies.

We recognize revenue when we satisfy a performance obligation by transferring control of our product or service to a customer. We identify performance obligations in a contract based on the goods and services that will be transferred to the customer. Those goods or services must (i) be capable of being distinct, so the customer can benefit from a good or service either on its own or together with readily available resources (either from third parties or from us) and (ii) be distinct in the context of the contract, where the transfer of control is separately identifiable from other promises in the contract. Our performance obligations are and can include the following deliverables: licenses, SaaS, support & maintenance, and professional services. If the contract contains a single performance obligation, the entire transaction price is allocated to the single performance obligation. Contracts that contain multiple performance obligations require an allocation of the transaction price to each performance obligation based on a relative standalone selling price, or SSP.

The SSP is determined based on the prices at which we separately sell our products and services, assuming the majority of these separate transactions fall within a pricing range. In instances where SSP is not directly observable, such as when we do not sell the subscription license or the maintenance and support separately, we determine the SSP using information that may include market conditions and other observable inputs that can require significant judgment. We have determined that our pricing for subscription term licenses and SaaS is highly variable and therefore allocates the transaction price to those performance obligations using the residual approach. Estimates of SSP could change over time based on changes in our pricing practices or other factors. The evaluation is made annually with any changes made prospectively by maximizing all observable inputs.

Revenue from our subscription term licenses is recognized when the software is delivered or made available to the customer. Subscription SaaS, support & maintenance revenue is recognized over the contract term as services are delivered. The changes in our pricing or the market conditions considered in determining SSP of our performance obligations between point-in-time license and over-time maintenance performance obligations could affect the timing and amount of revenue recognized.

Deferred Revenue and Sales Commissions

Deferred revenue consists of customer billings in advance of revenue being recognized. Amounts anticipated to be recognized within one year of the balance sheet date are recorded as deferred revenue, current; the remaining portion is recorded as deferred revenue, noncurrent in the consolidated balance sheets.

Sales commissions earned by our sales force are considered incremental and recoverable costs of obtaining a contract with a customer. Sales commissions for new revenue contracts and additional sales to existing customers are deferred and recorded in deferred commissions, current and noncurrent in the consolidated balance sheets. Deferred commissions are amortized consistent with the pattern of revenue recognition for each performance obligation for contracts for which the commissions paid were earned. Commissions paid for the ratable performance obligation in the initial acquisition of a contract are amortized over the estimated period of benefit.

We had total deferred commissions on our balance sheet of \$30.3 million and \$24.1 million as of December 31, 2022 and 2021, respectively. We amortized deferred commissions of \$15.2 million and \$14.0 million in our consolidated statements of operations for the years ended December 31, 2022 and 2021, respectively. If we were to change the period in which we amortize deferred commissions such change could have a significant impact to both our consolidated statements of operations and consolidated balance sheets.

Stock-based Compensation

We account for the measurement and recognition of stock-based compensation expense in accordance with the provisions of ASC 718, Compensation-Stock Compensation, or ASC 718. ASC 718 requires compensation expense for all stock-based compensation awards made to employees, nonemployees and directors to be measured and recognized based on the grant date fair value of the awards. We recognize forfeitures as they occur.

Stock-based compensation expense for service-based awards is determined based on the grant-date fair value and is recognized on a straight-line basis over the requisite service period of the award, which is typically the vesting term of the award. Stock-based compensation expense for awards subject to performance conditions are determined based on the grant-date fair value and is recognized on a graded vesting basis over the term of the award once it is probable that the performance conditions will be met.

Following the IPO, the Company grants equity awards to employees under the 2021 Equity Incentive Plan four times each year, on February 20th, May 20th, August 20th and November 20th, or prior business day. The restricted stock units granted in 2022 translates to an added stock-based compensation expense of approximately \$96.3 million to be recognized over four years. In future periods, we expect our stock-based compensation expense to increase as a result of our existing, unrecognized stock-based compensation that will be recognized as the awards vest, and as we grant additional stock-based awards to attract and retain employees.

Stock Options

The fair value of each time-based option grant is estimated on the date of the grant using the Black-Scholes option pricing model. The model requires certain subjective assumptions as inputs, including the following:

1. Volatility: Since our common stock did not have a trading history, expected volatility was estimated based on the average of the historical volatilities of the common stock of publicly-traded entities in our peer group within our industry and with characteristics similar to us.
2. Fair value of common stock: Prior to our IPO in September 2021 when our common stock was not yet publicly traded, we estimated the fair value of our common stock. Our board of directors considered numerous objective and subjective factors to determine the fair value of our common stock at each meeting in which awards were approved. After the IPO, we use the market closing price of our Class A common stock on the date of grant for the fair value to be used in the Black-Scholes pricing model.

After our IPO and as we continue to accumulate additional data related to our common stock, we may refine our estimates of expected volatility which could materially impact our future stock-based compensation expense. As we continue to accumulate additional data related to our Class A common stock, we may have refinements to the estimates of our expected volatility and expected terms, which could materially impact our future stock-based compensation expense.

Restricted Stock Units

The fair value of RSUs is estimated based on the fair value of our common stock on the date of grant. Prior to our IPO we issued 240,000 and 111,111 RSUs in 2016 and 2018, respectively. The fair value of the RSUs that are subject to vesting is recognized as a compensation expense over the requisite service or performance period, using the accelerated attribution method, once the liquidity event-related vesting condition becomes probable of being achieved. Our RSUs vest upon the satisfaction of (i) either a performance-based vesting condition or a service-based vesting condition and/or a (ii) liquidity event-related vesting condition. The service-based vesting condition is satisfied by the award holder providing services to us over a specific period. For some of our RSUs awards, the performance-based vesting condition is satisfied by our achievement of certain contracted ARR targets. On IPO we recorded a cumulative stock-based compensation expense of \$0.9 million for those RSUs for which the performance-based and service-based vesting conditions had been satisfied.

After the IPO, we primarily grant RSUs to our employees and it is our practice to convey the grant in the form of a dollar value to the employee. To translate that dollar value to quantity of shares granted, we use the 30 day average market closing price of our Class A common stock ending on the date of grant to calculate the quantity of RSUs to be awarded. The RSU quantity granted is then multiplied by the grant date closing price of our Class A common stock to estimate the fair value. Stock-based compensation expense for the service-based awards is determined based on the grant-date fair value and is recognized on a straight-line basis over the requisite service period of the award, which is typically the vesting term of the award.

Employee Stock Purchase Plan

The purchase rights issued under our 2021 Employee Stock Purchase Plan (the “2021 ESPP”) were based on the fair value of the awards on the date of grant. We used the market closing price of our Class A common stock on the date of grant for the fair value to be used in the Black-Scholes pricing model. This cost was recognized as an expense following the straight-line attribution method over the offering period for the purchase rights issued under the 2021 ESPP. The Company used the Black-Scholes option pricing model to measure the fair value of the purchase rights issued under the 2021 ESPP.

As per the Agreement and Plan of Merger (the “Merger Agreement”) entered on October 10, 2022, the last purchase under the 2021 ESPP occurred on November 15, 2022.

Accounting for Income Taxes

Deferred tax assets and liabilities are recognized based on the future tax consequences attributable to temporary differences that exist between the financial statement carrying value of assets and liabilities and their respective tax bases, and tax attributes such as net operating losses and tax credit carryforwards on a taxing jurisdiction basis. We measure deferred tax assets and liabilities using enacted tax rates that will apply in the years in which we expect the temporary differences to be recovered or settled. The accounting standard for income taxes requires a reduction of the carrying amounts of deferred tax assets by recording a valuation allowance if, based on the available evidence, it is more likely than not (defined by the accounting standard as a likelihood of more than 50%) that such assets will not be realized.

A tax benefit from an uncertain income tax position may be recognized in the financial statements only if it is more likely than not that the position is sustainable, based solely on its technical merits and consideration of the relevant taxing authorities' widely understood administrative practices and precedents. We recognize interest and penalties related to unrecognized tax benefits within income tax expense (benefit) in the consolidated statements of operations.

The valuation of deferred tax assets requires judgment in assessing the likely future tax consequences of events that have been recognized in our financial statements or tax returns. Our accounting for deferred tax consequences represents our best estimate of those future tax consequences. In assessing the need for a valuation allowance, we consider both positive and negative evidence related to the likelihood of realization of the deferred tax assets. If, based on the weight of that available evidence, it is more likely than not the deferred tax assets will not be realized, we record a valuation allowance. The weight given to the positive and negative evidence is commensurate with the extent to which the evidence may be objectively verified. This assessment, which is completed on a taxing jurisdiction basis, takes into account a number of types of evidence, including the following: 1) the nature, frequency and severity of current and cumulative financial reporting losses, 2) sources of future taxable income, 3) taxable income in prior carryback years, if carryback is permitted under the tax law and 4) tax planning strategies.

The calculation of our tax liabilities involves assessing uncertainties in the application of complex tax regulations in multiple tax jurisdictions. We may be periodically reviewed by domestic and foreign tax authorities regarding the amount of taxes due. These reviews may include questions regarding the timing and amount of deductions and the allocation of income among the various tax jurisdictions that we operate within. In evaluating the exposure associated with various filing positions, we record estimated reserves when it is more-likely-than-not that an uncertain tax position will not be sustained upon examination by a taxing authority.

In assessing the tax benefit from an uncertain income tax position, the tax position that meets the more-likely-than not recognition threshold is initially and subsequently measured as the largest amount of tax benefit that is greater than a 50% likelihood of being realized upon ultimate settlement with a taxing authority that has full knowledge of all relevant information. In the past, we have estimated the value of certain intercompany transactions using a discounted cash flow approach. Significant assumptions used to estimate the fair market value include projected revenue growth and projected operating margins.

Common Stock Valuation

Prior to IPO

Given our common stock was not yet publicly traded, our board of directors established the fair value of the shares of common stock underlying our stock options. These estimates were based in part upon valuations provided by third-party valuation firms.

As there was no public market for our common stock, our board of directors exercised reasonable judgment and considered numerous objective and subjective factors to determine the best estimate of the fair value of our common stock in accordance with the American Institute of Certified Public Accountants Practice Guide, Valuation of Privately-Held Company Equity Securities Issued as Compensation, or the AICPA Guide. The factors considered by our board of directors in estimating the fair value of our common stock included the following:

- contemporaneous valuations performed regularly by unrelated third-party specialists;
- rights, preferences, and privileges of our redeemable convertible preferred stock relative to those of our common stock;
- our historical operating and financial performance;
- relevant precedent transactions involving our capital stock;
- likelihood of achieving a liquidity event, such as the consummation of an initial public offering or the sale of our company given prevailing market conditions and the nature and history of our business;
- forecasted exit prices assuming IPO event;
- market multiples of comparable companies in our industry;
- stage of development;
- industry information such as market size and growth;
- the lack of marketability of our securities because we are a private company; and
- general macroeconomic conditions.

In valuing our common stock, our board of directors determined the value using both the income and the market approach valuation methods. The income approach estimates value based on the expectation of future cash flows that a company will generate. These future cash flows are discounted to their present values using a discount rate based on our weighted average cost of capital (“WACC”). To derive our WACC, a cost of equity was developed using the Capital Asset Pricing Model and comparable company betas, and a cost of debt was determined based on our estimated cost of borrowing. The costs of debt and equity were then weighted based on our actual capital structure. The market approach estimates value based on a comparison of our company to comparable public companies in a similar line of business. From the comparable companies, a representative market multiple was determined and subsequently applied to our financial results to estimate our enterprise value.

Application of these approaches involved the use of estimates, judgments, and assumptions that are highly complex and subjective, including those regarding our future expected revenue, expenses, cash flows, discount rates, market multiples, the selection of comparable public companies and the probability of future events. Changes in any or all of these estimates and assumptions impacted our valuations at each valuation date and could have had a material impact on the valuation of our common stock.

Prior to May 2020, the equity valuation was based on both the income and the market approach valuation methods and the Option Pricing Method, or OPM, was selected as the principal equity allocation method. Both these methods were consistent with prior valuations. For options granted starting after December 15, 2020, we have used a hybrid method to determine the fair value of our common stock. Under the hybrid method, multiple valuation approaches were used and then combined into a single probability weighted valuation. Our approaches included the use of initial public offering scenarios and a scenario assuming continued operations as a private entity.

Application of these approaches involved the use of estimates, judgment and assumptions that are highly complex and subjective, such as those regarding our expected future revenue, expenses and future cash flows, discount rates, market multiples, the selection of comparable companies and the probability of possible future events. Changes in any or all of these estimates and assumptions or the relationships between those assumptions could have impacted our valuations as of each valuation date and may have a material impact on the valuation of our common stock, warrants and preferred stock tranche option.

Post IPO

Following our IPO, we used the publicly quoted price as the fair value of our Class A common stock.

Recent Accounting Pronouncements

For a description of our recently adopted accounting pronouncements and recently issued accounting standards not yet adopted, see “Note 2 — Summary of Significant Accounting Policies — Recent Accounting Pronouncements” to our consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. As we have operations in the United States and internationally, our market risk exposure is primarily a result of exposure due to potential changes in foreign currency exchange rates, inflation or interest rates. We do not hold financial instruments for trading purposes.

Foreign Currency Exchange Risk

Our revenues and expenses are primarily denominated in U.S. dollars, British Pounds and Euros; however, we also have significant intercompany balances denominated in the Norwegian Krone. For the years ended December 31, 2022 and 2021, we recorded a net gain of \$2.6 million and a net loss of \$3.8 million on foreign exchange transactions, respectively. To date, we have not entered into any hedging arrangements with respect to foreign currency risk or other derivative financial instruments, but we may do so in the future if our exposure to foreign currency should become more significant. For business conducted outside of the United States, we have both revenue and costs incurred in the local currency of the subsidiary, creating a partial natural hedge. Changes to exchange rates have led to significant fluctuations in both our statement of operations and stockholders' equity (deficit) balance from year to year. On September 30, 2021, we reclassified certain intercompany balances considered long-term in nature. Accordingly, foreign currency remeasurement gains and losses related to these balances are being reported in the accumulated other comprehensive income in stockholders' equity (deficit) on the consolidated balance sheet effective October 1, 2021. We will continue to reassess our foreign exchange exposure as we continue to grow our business globally.

At December 31, 2022, a uniform hypothetical 10% increase or decrease in the foreign currency exchange rates in comparison to the United States dollar would have resulted in a corresponding increase or decrease of approximately \$9.6 million in revenue for the year ended December 31, 2022.

Interest Rate Risk

We had cash and cash equivalents and short-term investments of \$336.1 million and \$369.8 million as of December 31, 2022 and 2021, respectively. Our cash and cash equivalents are held in cash deposits, money market funds and marketable securities. As of December 31, 2022 and 2021, we held \$207.2 million and \$241.4 million, respectively, in short-term investments made up of commercial paper, asset-backed securities, corporate debt securities and U.S. government debt securities which are available-for-sale. Due to the short-term nature of these instruments, we do not believe that we have any material exposure to changes in the fair value of our investment portfolio as a result of changes in interest rates.

Our primary market risk exposure is changing interest rates. Interest rate risk is highly sensitive due to many factors, including U.S. monetary and tax policies, U.S. and international economic factors and other factors beyond our control. As of December 31, 2022, a hypothetical 10% relative change in interest rates would not have had a material impact on the value of our cash equivalents or investment portfolio. Fluctuations in the value of our cash equivalents and debt securities investment portfolio caused by a change in interest rates (gains or losses on the carrying value) are recorded in other comprehensive income (loss), and are realized only if we sell the underlying debt securities prior to maturity.

Inflation Risk

Based on our analysis of the periods presented, we believe that inflation has not had a material effect on our operating results. There can be no assurance that future inflation will not have an adverse impact on our operating results and financial condition.

Item 8. Financial Statements and Supplementary Data

FORGEROCK, INC.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm (PCAOB ID: 42)	84
Consolidated Balance Sheets	87
Consolidated Statements of Operations	88
Consolidated Statements of Comprehensive Loss	89
Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' Equity (Deficit)	90
Consolidated Statements of Cash Flows	91
Notes to Consolidated Financial Statements	93

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of ForgeRock, Inc.

Opinion on the Financial Statements

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

We also have 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, 2022, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated March 1, 2023 expressed an unqualified opinion thereon.

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 Matter

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

Revenue recognition

Description of the Matter	As explained in Note 2 to the consolidated financial statements, revenue is recognized when promised products and services are transferred to the customer. The amount of revenue recognized reflects the consideration to which the Company expects to be entitled in exchange for these products and services. The Company's contracts with customers often contain multiple performance obligations. For contracts with more than one performance obligation, the transaction price is allocated among the performance obligations based on the relative standalone selling price of each obligation. Auditing the Company's accounting for revenue recognition was challenging and complex due to the effort required to analyze the accounting treatment for the Company's various software product and service offerings in accordance with ASC 606, Revenue from Contracts with Customers. This involved assessing the impact of terms and conditions in contracts with customers, the determination of the relative standalone selling prices for each distinct performance obligation, and the timing of revenue recognition.
How We Addressed the Matter in Our Audit	Among other procedures, to evaluate management's identification and evaluation of the performance obligations and timing of revenue recognition, we read executed contracts for a sample of sales transactions to understand the contract, identified the promised products and services in the contract and identified the distinct performance obligations. To test management's determination of relative standalone selling price for each performance obligation, we assessed the appropriateness of the methodology applied, tested mathematical accuracy of the underlying data and calculations, and tested a sample of sales transactions to corroborate the data underlying the Company's calculations. We also tested amounts recognized pursuant to contractual terms and conditions by examining the relationship between revenue recognized, deferred revenue, accounts receivable and related cash collections.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2016.

San Jose, California
March 1, 2023

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of ForgeRock, Inc.

Opinion on Internal Control Over Financial Reporting

We have audited ForgeRock, Inc.'s internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, ForgeRock, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2022 and 2021, the related consolidated statements of operations, comprehensive loss, redeemable convertible preferred stock and stockholders' equity (deficit) and cash flows for each of the three years in the period ended December 31, 2022, and the related notes and our report dated March 1, 2023 expressed an unqualified opinion thereon.

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 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.

/s/ Ernst & Young LLP

San Jose, California
March 1, 2023

FORGEROCK, INC.
CONSOLIDATED BALANCE SHEETS
(In thousands, except par value)

	December 31,	
	2022	2021
Assets		
Current assets:		
Cash and cash equivalents	\$ 128,803	\$ 128,381
Short-term investments	207,248	241,411
Accounts receivable, net of allowance for credit losses of \$444 and \$34, respectively	71,439	55,999
Contract assets	25,117	19,670
Deferred commissions	9,936	8,457
Prepaid expenses and other assets	14,810	9,787
Total current assets	457,353	463,705
Deferred commissions	20,379	15,601
Property and equipment, net	2,850	2,463
Operating lease right-of-use assets	10,190	12,626
Contract and other assets	3,408	2,783
Total assets	\$ 494,180	\$ 497,178
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	\$ 4,587	\$ 2,039
Accrued expenses	34,311	27,375
Current portion of operating lease liability	1,902	1,820
Deferred revenue	82,036	67,222
Other liabilities	2,927	2,258
Total current liabilities	125,763	100,714
Long-term debt	39,611	39,483
Long-term operating lease liability	9,207	11,037
Deferred revenue	1,283	8,172
Other liabilities	2,150	1,646
Total liabilities	178,014	161,052
Commitments and contingencies (Note 9)		
Stockholders' equity		
Class A common stock; \$0.001 par value; 1,000,000 shares authorized as of December 31, 2022 and December 31, 2021, 49,782 and 28,892 shares issued and outstanding as of December 31, 2022 and December 31, 2021, respectively	50	29
Class B common stock; \$0.001 par value; 500,000 shares authorized as of December 31, 2022 and December 31, 2021, 37,195 and 53,761 shares issued and outstanding as of December 31, 2022 and December 31, 2021, respectively	37	54
Additional paid-in capital	641,983	593,196
Accumulated other comprehensive income	4,193	6,672
Accumulated deficit	(330,097)	(263,825)
Total stockholders' equity	316,166	336,126
Total liabilities and stockholders' equity	\$ 494,180	\$ 497,178

See accompanying notes to consolidated financial statements

FORGEROCK, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share amounts)

	Year ended December 31,		
	2022	2021	2020
Revenue:			
Subscription term licenses	\$ 87,292	\$ 84,611	\$ 64,318
Subscription SaaS, support & maintenance	119,003	85,434	57,833
Perpetual licenses	515	1,695	1,225
Total subscriptions and perpetual licenses	206,810	171,740	123,376
Professional services	10,702	5,193	4,258
Total revenue	217,512	176,933	127,634
Cost of revenue:			
Subscriptions and perpetual licenses	27,768	17,535	12,249
Professional services	11,772	15,393	9,079
Total cost of revenue	39,540	32,928	21,328
Gross profit	177,972	144,005	106,306
Operating expenses:			
Research and development	61,837	43,497	35,901
Sales and marketing	118,794	88,620	75,768
General and administrative	57,724	40,329	26,729
Acquisition-related costs	6,173	—	—
Total operating expenses	244,528	172,446	138,398
Operating loss	(66,556)	(28,441)	(32,092)
Foreign currency gain (loss)	2,568	(3,819)	3,064
Fair value adjustment on warrants and preferred stock tranche option	—	(10,068)	(7,344)
Interest expense	(3,577)	(4,516)	(4,512)
Other income (expense), net	2,971	(40)	(345)
Interest and other expense, net	1,962	(18,443)	(9,137)
Loss before income taxes	(64,594)	(46,884)	(41,229)
Provision for income taxes	1,678	884	565
Net loss	\$ (66,272)	\$ (47,768)	\$ (41,794)
Net loss per share attributable to common stockholders:			
Basic and diluted	\$ (0.78)	\$ (1.14)	\$ (1.74)
Weighted-average shares used in computing net loss per share attributable to common stockholders:			
Basic and diluted	84,885	41,742	23,989

See accompanying notes to consolidated financial statements

FORGEROCK, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(In thousands)

	Year ended December 31,		
	2022	2021	2020
Net loss	\$ (66,272)	\$ (47,768)	\$ (41,794)
Other comprehensive income (loss), net of tax:			
Net change in unrealized losses on available-for-sale securities	(1,377)	(591)	—
Foreign currency translation adjustment	(1,102)	2,010	(2,346)
Total comprehensive loss	\$ (68,751)	\$ (46,349)	\$ (44,140)

See accompanying notes to consolidated financial statements

FORGEROCK, INC.
CONSOLIDATED STATEMENTS OF REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)
(In thousands, except share data)

		preferred stock	Redeemable convertible
		Shares	Amount
Balances as of December 31, 2019		31,145,475	\$
based compensation expense	Stock-	—	
Series E redeemable convertible preferred stock issuance, net of issuance costs (Note 12)		9,697,144	
common stock options	Exercise of	—	
of shares from employees	Repurchase	—	
currency translation adjustment	Foreign	—	
	Net loss	—	
Balances as of December 31, 2020		40,842,619	
based compensation expense	Stock-	—	
Series E-1 redeemable convertible preferred stock issuance, net of issuance costs		1,935,789	
Reclassification of preferred stock tranche option liability upon issuance of Series E-1 redeemable convertible preferred stock		—	
Conversion of redeemable convertible preferred stock into Class B common stock in connection with initial public offering		(42,778,408)	
Issuance of Class A common stock upon initial public offering net of underwriting discounts, commissions and issuance costs		—	
Issuance of Class B common stock upon exercise of warrants		—	
Exercise of Class B common stock options		—	
Class B Common stock issued upon vesting of restricted stock units, net of tax withholding		—	
Unrealized loss on available-for-sale securities		—	
Foreign currency translation adjustment		—	
	Net loss	—	
Balances as of December 31, 2021		—	
Stock-based compensation expense		—	
Issuance of common stock under stock option plans, net		—	
Releases of restricted stock, net of tax withholding		—	
Issuance of common stock under employee stock purchase plan		—	
Unrealized loss on available-for-sale securities		—	
Foreign currency translation adjustment		—	
	Net loss	—	
Balances as of December 31, 2022		—	\$

See accompanying notes to consolidated financial statements

**FORGEROCK, INC. CONSOLIDATED
STATEMENTS OF CASH FLOWS**
(In thousands)

	Year ended December 31,		
	2022	2021	2020
Operating activities:			
Net loss	\$ (66,272)	\$ (47,768)	\$ (41,794)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation	1,064	1,061	1,155
Noncash operating lease expense	2,449	1,931	—
Restructuring and impairment charges	—	—	530
Stock-based compensation expense	32,760	10,666	6,184
Amortization of deferred commissions	15,235	13,964	13,423
Foreign currency remeasurement loss (gain)	(2,711)	3,032	(3,079)
Change in fair value of redeemable convertible preferred stock warrant liability	—	5,871	1,218
Change in fair value of preferred stock tranche option liability	—	4,157	6,146
Amortization of premium / discount on short-term investments	1,156	1,330	—
Other	(169)	266	371
Changes in operating assets and liabilities:			
Deferred commissions	(21,487)	(23,273)	(18,005)
Accounts receivable	(13,371)	(20,669)	(797)
Contract and other non-current assets	(5,104)	(10,505)	(4,819)
Prepaid expenses and other current assets	(2,323)	(6,025)	1,390
Operating lease liabilities	(1,733)	(2,377)	—
Accounts payable	2,514	701	(398)
Accrued expenses and other liabilities	7,422	10,863	3,576
Deferred revenue	5,564	19,992	5,305
Net cash used in operating activities	(45,006)	(36,783)	(29,594)
Investing activities:			
Purchases of property and equipment	(1,619)	(1,113)	(854)
Purchases of short-term investments	(166,363)	(277,126)	(2,992)
Maturities of short-term investments	158,615	31,860	3,000
Sales of short-term investments	39,379	1,933	—
Net cash provided by (used in) investing activities	30,012	(244,446)	(846)
Financing activities:			
Proceeds from initial public offering, net of underwriting discounts and commissions	—	295,694	—
Payment of stock offering costs	(145)	(6,038)	—
Proceeds from exercises of employee stock options	12,237	4,902	566
Proceeds from issuance of common stock under employee stock purchase plan	6,961	—	—
Proceeds from issuance of redeemable convertible preferred stock	—	19,951	93,532
Redeemable convertible preferred stock issuance costs	—	—	(343)
Employee payroll taxes paid for net shares settlement of restricted stock units	(3,154)	(3,877)	—
Repurchase of common stock from employees	—	—	(2,307)
Proceeds from issuance of debt, net of issuance costs	—	—	9,914
Principal repayments on debt	—	(120)	(211)
Net cash provided by financing activities	15,899	310,512	101,151
Effect of exchange rates on cash and cash equivalents and restricted cash	1,982	(888)	546
Net increase in cash, cash equivalents and restricted cash	2,887	28,395	71,257
Cash, cash equivalents and restricted cash, beginning of year	128,437	100,042	28,785
Cash, cash equivalents and restricted cash, end of period	\$ 131,324	\$ 128,437	\$ 100,042

	Year ended December 31,		
	2022	2021	2020
Supplementary cash flow disclosure:			
Short-term investments, end of period	\$ 207,248	\$ 241,411	\$ —
Cash paid for interest	3,244	3,629	3,914
Cash paid for income taxes	1,245	769	270
Deferred offering costs accrued but not yet paid	—	(145)	—
Conversion of redeemable convertible preferred stock to common stock (Note 12)	—	263,178	—
Non-cash investing and financing activities:			
Changes in the fair value of the stock warrant liability and stock tranche option liability	\$ —	\$ 10,068	\$ 7,364
Operating lease right-of-use assets exchanged for lease liabilities	72	14,596	—
Purchases of property and equipment, accrued but not yet paid	32	125	26
Reconciliation of cash and cash equivalents and restricted cash:			
Cash and cash equivalents	\$ 128,803	\$ 128,381	\$ 99,953
Restricted cash included in prepaids and other current assets	2,521	56	89
Total cash and cash equivalents and restricted cash	<u>\$ 131,324</u>	<u>\$ 128,437</u>	<u>\$ 100,042</u>

See accompanying notes to consolidated financial statements

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Overview and Basis of Presentation**Company and Background**

ForgeRock, Inc. (“ForgeRock” or “the Company”) is a modern digital identity platform transforming the way enterprises secure, manage, and govern the identities of customers, employees and partners, APIs, microservices, devices, and Internet of Things (IoT). Organizations adopt the ForgeRock Identity Platform as their digital identity system of record to enhance data security and sovereignty as well as improve performance. ForgeRock’s identity platform provides a full suite of identity management, access management, identity governance, and artificial intelligence (AI)-powered autonomous identity solutions. The Company is headquartered in San Francisco, California and has operations in Canada and the United States of America (collectively referred to as Americas), France, Germany, Norway and the United Kingdom (collectively referred to as EMEA), Australia, New Zealand and Singapore (collectively referred to as APAC). The Company was formed in Norway in 2009 and incorporated in Delaware in February 2012.

Initial Public Offering

On September 20, 2021, the Company completed an initial public offering (“IPO”), in which the Company issued and sold 12,650,000 shares of Class A common stock at a price per share of \$25.00, including 1,650,000 shares resulting from the exercise in full of the underwriters’ option to purchase additional shares. The Company received net proceeds of \$295.7 million from the IPO, after deducting underwriting discounts and commissions of \$21.3 million and before deducting estimated offering costs of \$6.2 million.

Immediately prior to the completion of the IPO, all shares of the Company’s outstanding redeemable convertible preferred stock converted into 42,778,408 shares of common stock on a one-to-one basis and immediately thereafter but still prior to the completion of the Company’s IPO, all outstanding shares of common stock were reclassified into 25,421,137 shares of Class B common stock on a one-to-one basis.

Pending Merger

On October 10, 2022, the Company entered into the Merger Agreement with Parent and Merger Sub, pursuant to which Merger Sub will merge with and into ForgeRock and ForgeRock will continue as the surviving corporation in the Merger, as a wholly owned subsidiary of Parent. Parent and Merger Sub are affiliates of Thoma Bravo.

Under the Merger Agreement, at the effective time of the Merger, each issued and outstanding share of the Company’s Class A common stock and Class B common stock (except for certain shares specified in the Merger Agreement) will be canceled and automatically converted into the right to receive cash in an amount equal to \$23.25 per share, without interest.

Completion of the Merger remains subject to the satisfaction of certain terms and conditions set forth in the Merger Agreement, including (i) the absence of any order issued by any governmental entity of competent jurisdiction or any law applicable to the merger that, in each case, prevents, materially restrains, or materially impairs the consummation of the Merger; and (ii) the expiration or termination of the waiting period applicable to the Merger pursuant to the HSR Act, and the absence of any agreement with any governmental authority not to consummate the Merger.

On December 22, 2022, ForgeRock and Parent each received a Second Request from the DOJ in connection with the DOJ’s review of the Merger. The issuance of the Second Request extends the waiting period under the HSR Act until 30 days after both ForgeRock and Parent have substantially complied with the Second Request.

On January 12, 2023, we received approval of the Merger Agreement by the affirmative vote of ForgeRock’s stockholders holding a majority of the outstanding voting power of ForgeRock’s common stock.

ForgeRock and entities affiliated with Thoma Bravo have entered into the Timing Agreement with the DOJ in connection with the Merger and the Second Request. Under the Timing Agreement, ForgeRock and Thoma Bravo have agreed that they will certify compliance with the Second Request no earlier than May 1, 2023, and will not consummate the Merger less than 75 days after compliance with the Second Request. The Timing Agreement does not prevent ForgeRock and Thoma Bravo from consummating the Merger sooner if the DOJ closes its investigation of the Merger before that date. The expiration or termination of the waiting period applicable to the Merger pursuant to the HSR Act (and the absence of any agreement with any governmental authority not to consummate the Merger) is the only remaining approval or regulatory condition required to consummate the closing of the Merger under the Merger Agreement.

Upon consummation of the Merger, ForgeRock will cease to be a publicly traded company and its Class A common stock will be delisted from the New York Stock Exchange.

Basis of Presentation and Principles of Consolidation

The accompanying consolidated financial statements, which include the accounts of the Company and its wholly owned subsidiaries, have been prepared in accordance with U.S. generally accepted accounting principles (U.S. GAAP). All intercompany balances and transactions have been eliminated on consolidation.

Use of Estimates

The Company's consolidated financial statements are prepared in accordance with U.S. GAAP as set forth in the Financial Accounting Standards Board's ("FASB") Accounting Standards Codification ("ASC"). These accounting principles require us to make certain estimates and assumptions. The significant estimates and assumptions include but are not limited to (i) standalone selling price ("SSP") in revenue recognition, (ii) valuation allowance of deferred income taxes, (iii) valuation of stock-based compensation, (iv) valuation of the Company's common stock prior to the Company's IPO in September 2021, (v) valuation of the preferred stock tranche option liability prior to the Company's IPO, and (vi) valuation of preferred stock warrant liability. Management evaluates these estimates and assumptions on an ongoing basis and makes estimates based on historical experience and various other assumptions that are believed to be reasonable. However, because future events and their effects cannot be determined with certainty, actual results may differ from these assumptions and estimates, and such differences could be material.

The COVID-19 pandemic has resulted in a sustained global slowdown of economic activity that has decreased demand for certain goods and services, including possibly from the Company's customers. While we have not experienced significant disruptions from the COVID-19 pandemic, we are unable to accurately predict the extent to which the ongoing COVID-19 pandemic may impact our business, results of operations and financial condition going forward. Estimates and assumptions about future events and their effects cannot be determined with certainty and therefore require the exercise of judgment. If the pandemic or its impact changes, the Company's judgments or estimates will also change, and those changes could materially impact the Company's consolidated financial statements.

2. Summary of Significant Accounting Policies

Cash and Cash Equivalents

Cash consists primarily of cash on deposit with banks. Cash equivalents include highly liquid investments purchased with an original maturity date of 90 days or less from the date of purchase.

The Company monitors its credit risk by considering factors such as historical experience, credit ratings, current economic conditions, and reasonable and supportable forecasts.

Short-term investments

Short-term investments consist primarily of money market funds, U.S. government securities, commercial paper, corporate debt and asset-backed securities. The Company's policy requires investments to be investment grade, with the primary objective of minimizing the potential risk of principal loss. The Company classifies its short-term investments as available-for-sale securities at the time of purchase and reevaluates such classification at each balance sheet date. The Company has classified its investments as current based on the nature of the investments and their availability for use in current operations.

Available-for-sale debt securities are recorded at fair value each reporting period. Unrealized gains and losses on these investments are reported as a separate component of accumulated other comprehensive loss on the consolidated balance sheets until realized. Interest income is reported within other, net in the consolidated statements of operations. The Company periodically evaluates its investments to assess whether those with unrealized loss positions are other-than-temporarily impaired. Unrealized gains and losses for any short-term investments that management intends to sell or where it is more likely than not management will be required to sell prior to their anticipated recovery are recorded in other income (expense), net. The Company segments its portfolio based on the underlying risk profiles of the securities and has a zero-loss expectation for U.S. treasury and U.S. government agency securities. The Company regularly reviews the securities in an unrealized loss position and evaluates the current expected credit loss by considering factors such as credit ratings, issuer-specific factors, current economic conditions, and reasonable and supportable forecasts. The Company did not record any material credit losses for the year ended December 31, 2022. As of December 31, 2022 and 2021, no allowance for credit losses in short-term investments was recorded.

Accounts Receivable

Accounts receivable are recorded at the invoiced amount net of allowance for credit losses and are non-interest bearing. Effective January 1, 2022, the Company reports accounts receivable and contract assets net of an allowance for expected credit losses in accordance with Accounting Standards Codification Topic 326, Financial Instruments – Credit Losses (“ASC 326”), while prior period amounts continue to be reported in accordance with previously applicable GAAP. These allowances are based on the Company’s assessment of the collectability of accounts by considering the age of each outstanding invoice, the collection history of each customer, and an evaluation of current expected risk of credit loss based on current conditions and reasonable and supportable forecasts of future economic conditions over the life of the receivable. We assess collectability by reviewing accounts receivable on an aggregated basis where similar characteristics exist and on an individual basis when we identify specific customers with known disputes or collectability issues. Amounts deemed uncollectible are recorded as an allowance for expected credit losses in the consolidated balance sheets with an offsetting decrease in deferred revenue or a charge to sales and marketing expense in the consolidated statements of operations. As of December 31, 2022 and 2021 the Company recorded an allowance for credit losses of \$444,000 and \$34,000, respectively.

Allowance for credit losses consisted of the following (in thousands):

	December 31,	
	2022	2021
Balance, beginning of period	\$ 34	\$ 159
Additions	410	34
Reversal of credit loss	—	(133)
Write-offs	—	(26)
Balance, end of period	<u>\$ 444</u>	<u>\$ 34</u>

Capitalized Software Costs

Capitalization of software development costs for products to be sold to third parties begins upon the establishment of technological feasibility and ceases when the product is available for general release. The Company’s current process for developing its software is essentially completed concurrently with the establishment of technological feasibility, whereby there is minimal passage of time between achievement of technological feasibility and the availability of the Company’s product for general release. Therefore, the Company has not capitalized any internally developed software costs to date. Software development costs incurred before technical feasibility and after general release are expensed as incurred.

Software development costs for internal use software are subject to capitalization during the application development stage, beginning when a project that will result in additional functionality is approved and ending when the software is put into productive use. The costs incurred between these stages are generally not material to the Company due to short development cycles. Capitalizable software development costs for the years ended December 31, 2022 and 2021, were \$3.3 million and \$0.9 million, respectively. The Company has capitalized certain implementation costs incurred in connection with cloud computing arrangements that are service contracts and recorded these in contract and other assets in the consolidated balance sheets. Costs related to preliminary project activities and post-implementation activities are expensed as incurred.

Property and Equipment

Property and equipment is stated at cost less accumulated depreciation. Depreciation is computed using the straight-line method in amounts sufficient to write-off depreciable assets over their estimated useful lives, generally three to seven years. Leasehold improvements are amortized over the shorter of the estimated useful lives of the assets or the period of the lease term. Repairs and maintenance are expensed as incurred. The Company reduces the cost and accumulated depreciation of depreciable assets retired or otherwise disposed of from the respective accounts and reflect any gains or losses in operating expenses for the period.

Property and equipment is reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of any asset may not be recoverable. Recoverability of assets to be held and used is measured by comparing the carrying amount to the estimated undiscounted future cash flows expected to be generated. If the carrying amount exceeds the undiscounted cash flows, the assets are determined to be impaired and an impairment charge is recognized as the amount by which the carrying amount exceeds its fair value. For the year ended December 31, 2022 and 2021, there were no material impairment charges recorded.

Estimated useful lives of fixed assets are as follows:

Computer hardware	3-4 years
Furniture, fixtures and equipment	5-7 years
Leasehold improvements	5-10 years

Revenue

The Company recognizes revenue under ASC Topic 606, *Revenue from Contracts with Customers* ("ASC 606"). Consistent with the overall core principle of ASC 606, the Company recognizes revenue when promised products and services are transferred to the customer. The amount of revenue recognized reflects the consideration to which the Company expects to be entitled in exchange for these products and services. The Company applies judgement in identifying and evaluating terms and conditions in contracts which may impact revenue recognition.

To determine the appropriate amount of revenue to be recognized as it fulfills its obligations under each of the agreements, the Company performs the following steps:

- Step 1 – Identify the contract(s) with the customer
- Step 2 – Identify the performance obligations in the contract
- Step 3 – Determine the transaction price
- Step 4 – Allocate the transaction price to the performance obligations in the contract
- Step 5 – Recognize revenue when (or as) performance obligations are satisfied

Step 1 – Identify the contract with the customer:

Prior to recognizing any revenue, both the Company and its customer sign a written agreement ("contract") that clearly specifies each party's rights and obligations, as well as the payment terms for delivered products and services.

Step 2 – Identify the performance obligations in the contract

Performance obligations are identified based on the products and services that will be transferred to the customer that are both (i) capable of being distinct, whereby the customer can benefit from a product or service either on its own or together with other resources that are readily available from third parties or from the Company, and (ii) are distinct in the context of the contract, whereby the transfer of certain products or services is separately identifiable from other promises in the contract.

The Company sells its products and services through term license, perpetual license and SaaS subscription contracts. On-premise (i.e. self-managed) offerings are comprised of subscription term or perpetual licenses and an obligation to provide support and maintenance, which constitute separate performance obligations. The Company's SaaS subscriptions provide customers the right to access cloud-hosted software and support as a service, which the Company considers to be a single performance obligation. The Company also renews subscriptions for support and maintenance, which the Company considers to be a single performance obligation.

Professional services consist of consulting, cloud onboarding, training credit and training subscription services. These services are distinct performance obligations from self-managed offerings and SaaS subscriptions and do not result in significant customization of the software.

Step 3 – Determine the transaction price

In general, consideration earned by the Company consists of fixed amounts only. The impact of variable consideration has not been material in any year because the Company generally does not offer refunds, rebates or credits to customers. The Company's contracts do not contain a significant financing component.

The Company is generally the principal and controls the delivery of products and services, and revenue is recorded at the gross amounts billed and receivable. Indirect transactions are those where subscriptions, professional services and/or training is provided to an end customer through a partner (reseller). Revenue from transactions with reseller partners is recorded based on the amount billed to the reseller partner. In cases where the Company is not the principal, revenue is recorded net of amounts payable to partners.

Taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction that are collected by the Company from a customer, are excluded from revenue.

Step 4 – Allocate the transaction price to the performance obligations in the contract

Contracts that contain multiple performance obligations require an allocation of the transaction price to each performance obligation based on a relative standalone selling price (“SSP”).

The SSP is determined based on the prices at which the Company separately sells the products and services, assuming the majority of these separate transactions fall within an observable range of prices when sold separately in comparable circumstances to similar customers. In instances where SSP is not directly observable, such as when the Company does not sell the subscription license or the maintenance and support separately, the Company determines the SSP using information that may include market conditions and other observable inputs that can require significant judgment. The Company’s self-managed subscription term licenses and perpetual licenses have not historically been sold on a standalone basis, as the Company always sells these licenses together with support and maintenance contracts. License support and maintenance contracts are generally priced as a percentage of the net fees paid by the customer to access the license. The Company is unable to establish SSP for ForgeRock’s self-managed subscription term and perpetual licenses and SaaS subscriptions based on observable prices given the same products are sold for a broad range of amounts (that is, the selling price is highly variable) and a representative SSP is not discernible from past transactions or other observable evidence. As a result, the SSP for self-managed subscription term and perpetual licenses and SaaS subscriptions included in a contract with multiple performance obligations is determined by applying a residual approach whereby all other performance obligations within the contract are first allocated a portion of the transaction price based upon their respective SSPs, with any residual amount of transaction price allocated to the self-managed subscription term and perpetual licenses or SaaS subscription.

Step 5 – Recognize revenue when (or as) performance obligations are satisfied

Software Licenses

Revenue is generally recognized when the software is delivered or made available to the customer, at which time the Company’s performance obligation is satisfied.

Support & Maintenance

Revenue from support and maintenance represent fees earned from providing customers unspecified future updates, upgrades and enhancements and technical product support on an if and when available basis. Support and maintenance revenue is recognized ratably over the subscription term license period or the support period.

Identity and Access Management Service (SaaS)

Revenue from SaaS is earned by providing customers stand-ready access to the Company’s hosted Identity Cloud-based Access Management Service and support. Revenue is recognized ratably over the contract period as the Company satisfies its performance obligation.

Professional Services

Revenue from consulting service and training credits are recognized when such services or training are delivered. Revenue from fixed fee cloud onboarding services is recognized based on milestone achievements. Revenue from training subscription is recognized ratably over the training subscription period.

Cost of Revenue

Subscriptions and perpetual licenses cost of revenue consists primarily of employee compensation costs for employees associated with supporting the Company’s subscriptions and perpetual license arrangements and certain third-party expenses such as contractors, cloud infrastructure and customer support costs.

Professional services cost of revenue consists primarily of employee compensation costs and third-party hosting costs.

Contract Costs

The Company has determined sales commissions as well as payroll tax and other costs associated with and directly attributable to the contract obtained are incremental and recoverable costs of obtaining a contract with a customer. These costs are recorded as deferred commissions in the consolidated balance sheets, current and noncurrent. Sales commissions for renewals of customer contracts are not commensurate with the commissions paid for the acquisition of the initial contract. Accordingly, commissions paid upon the initial acquisition of a contract are amortized over the estimated period of benefit of four to five years, which may exceed the term of the initial contract because of expected renewals. Commissions paid upon multi-year renewal are amortized over the renewal contract term. The Company amortizes these commissions consistent with the pattern of satisfaction of the performance obligation to which the asset relates. Amortization expense is included in sales and marketing expense in the consolidated statements of operations.

The Company determines the estimated period of benefit based on the duration of relationships with the Company's customers, which includes the expected renewals of customer contracts, customer retention data, the Company's technology development lifecycle and other factors. The Company applies a practical expedient to expense costs as incurred for costs to obtain a contract with a customer when the amortization period would have been one year or less.

Refer to Footnote 3 - Segment and Revenue Disclosures for details regarding the Company's capitalized commissions and amortization of deferred commissions.

Foreign Currency Translation and Remeasurement

The functional currencies of the Company's foreign subsidiaries are their local currencies. All assets and liabilities denominated in a foreign currency are translated into U.S. dollars at the exchange rate on the balance sheet date. Subsidiaries' equity balances are translated using historical exchange rates. Revenues and expenses are translated at the average exchange rate during the period. Adjustments arising from translation of those financial statements into the Company's reporting currency, the U.S. dollar, are included in accumulated other comprehensive income within stockholders' equity deficit.

Several of the Company's foreign subsidiaries transact in currencies other than their local functional currency. Transactions, including intercompany transactions, in foreign currencies are initially recorded at the rates of exchange prevailing on the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are remeasured into the subsidiary's functional currency at the rates prevailing on the balance sheet date. Non-monetary items that are denominated in foreign currencies are measured using historical exchange rates. Gains and losses recognized from foreign currency transactions denominated in currencies other than the foreign subsidiary's local currency are included in foreign currency (loss) gain in the consolidated statements of operations. The Company recorded \$2.6 million, \$(3.8) million and \$3.1 million in foreign exchange gains (losses) in the years ended December 31, 2022, 2021 and 2020, respectively.

Concentrations of Credit Risk, Significant Customers and Third Party Hosted Services

The Company's financial instruments that are exposed to concentrations of credit risk consist primarily of cash and cash equivalents, short-term investments and accounts receivable. Cash and cash equivalents and short-term investments are currently held in one financial institution and, at times, may exceed federally insured limits.

Major customers

No single customer represented over 10% of revenue for the years ended December 31, 2022, 2021 and 2020. No single customer represented over 10% of accounts receivable for the years ended December 31, 2022 and 2021. The Company does not require collateral to secure trade receivable balances.

Refer to Note 3, "Segment and Revenue Disclosures" for additional revenue disclosures.

Third Party Hosted Services

The Company relies on the technology, infrastructure, and software applications, including software-as-a-service offerings, of third parties in order to host or operate certain key products and functions of its business. Our customers rely on these third-party hosted services retaining a high level of uptime. Through December 31, 2022, the Company has not incurred any significant service level credits to its customers.

Collaborative Arrangements

The Company has entered into collaborative arrangements with three partners in order to develop future versions and enhance the features and functionality of its identity software and SaaS services. These arrangements have been determined to be within the scope of ASC 808, *Collaborative Arrangements*, as the parties are active participants and exposed to the risks and rewards of the collaborative activity. These arrangements also include research, development and commercial activities. The terms of the Company's collaborative arrangements include (i) revenue on sales of licensed products, (ii) royalties on net sales of licensed products, (iii) reimbursements for research and development expenses, and (iv) sales-based milestone warrants which expire after ten years. In the years ended December 31, 2022, 2021 and 2020 the Company had recognized revenue of \$5.7 million, \$5.4 million and \$1.9 million and royalty expenses of \$1.4 million, \$0.9 million and \$0.6 million related to collaborative arrangements, respectively.

Research and Development Expenses

Research and development expenses include all direct costs, primarily salaries and stock-based compensation costs for Company personnel and outside consultants, related to the development of new software products, significant enhancements to existing software products, allocated overhead including depreciation, office rent, software and maintenance expenses. Research and development costs are generally expensed as incurred.

Sales and Marketing Expenses

Sales and marketing expenses primarily consist of personnel costs for the Company's sales, marketing and business development employees, commissions earned by the Company's sales personnel and third-party partners, the cost of marketing programs such as brand awareness and lead generation programs, marketing events, industry analyst fees, website design and maintenance costs, allocated overhead including depreciation and office rent. Marketing and advertising costs are expensed as incurred and are included in sales and marketing expenses. Advertising costs were \$8.4 million, \$6.7 million, and \$5.5 million for the years ended December 31, 2022, 2021 and 2020, respectively.

Stock-based Compensation Expense

The Company accounts for the measurement and recognition of stock-based compensation expense in accordance with the provisions of ASC 718, Compensation-Stock Compensation ("ASC 718"). ASC 718 requires compensation expense for all stock-based compensation awards made to employees, non-employees and directors to be measured and recognized based on the grant date fair value of the awards. Stock-based compensation expense is recognized net of forfeitures. The Company recognizes forfeitures as they occur. Following the IPO, the Company grants equity awards to employees under the 2021 Equity Incentive Plan four times each year, on February 20th, May 20th, August 20th and November 20th, or prior business day.

Restricted Stock Units (RSUs)

The fair value of RSUs is estimated based on the fair value of our common stock on the date of grant.

2016 - 2018 RSU Grants: The Company issued 240,000 and 111,111 RSUs in 2016 and 2018, respectively. The fair value of RSUs that are subject to vesting is recognized as a compensation expense over the requisite service or performance period, using the accelerated attribution method, once the liquidity event-related vesting condition becomes probable of being achieved. Our RSUs vest upon the satisfaction of (i) either a performance-based vesting condition or a service-based vesting condition and a (ii) liquidity event-related vesting condition. The performance-based vesting condition is satisfied by our achievement of certain contracted ARR targets. The service-based vesting condition is satisfied by the award holder providing services to us over a specific period. The liquidity event-related vesting condition is satisfied on the earlier of: (i) a Change in Control (as defined in the 2012 Plan) or (ii) the IPO. All performance-based and time-based vesting conditions of our RSUs have been satisfied. On IPO we recorded a cumulative stock-based compensation expense of \$0.9 million for those RSUs for which the performance-based and service-based vesting conditions had been satisfied.

2021 RSU Grants: After the IPO, the Company primarily grants RSUs to its employees and the Company's practice is to convey the grant in the form of a dollar value to the employee. To translate that dollar value to quantity of shares granted, the Company uses the 30 day average market closing price of the Company's Class A common stock ending on the date of grant to calculate the quantity of RSUs to be awarded. The RSU quantity granted is then multiplied by the grant date closing price of the Company's Class A common stock to estimate the fair value. Stock-based compensation expense for service-based awards is determined based on the grant-date fair value and is recognized on a straight-line basis over the requisite service period of the award, which is typically the vesting term of the award.

Stock Options

Stock-based compensation expense for stock options is determined based on the grant-date fair value and is recognized on a straight-line basis over the requisite service period of the stock option, which is typically the vesting term of the award. The Company accounts for stock option awards issued to employees and non-employees based on the fair value of the award, determined using the Black-Scholes option valuation model. The model requires some assumptions as inputs, including the following:

- **Risk-free rate:** The risk-free interest rate is based on the implied yield currently available on U.S. Treasury securities with a remaining term commensurate with the estimated expected term.
- **Expected term:** For time-based awards, the estimated expected term of options granted is generally calculated as the vesting period plus the midpoint of the remaining contractual term, as the Company does not have sufficient historical information to develop reasonable expectations surrounding future exercise patterns and post-vesting employment termination behavior.
- **Dividend yield:** The Company uses a dividend yield of zero, as it does not currently issue dividends and has no plans to issue dividends in the foreseeable future.
- **Volatility:** Since the Company does not have a substantive trading history of its Class A common stock, expected volatility is estimated based on the average of the historical volatilities of the common stock of publicly-traded entities in the Company's peer group within the Company's industry and with characteristics similar to those of the Company.
- **Fair value:** Prior to the IPO, there was no public market for the Company's common stock, so the fair value of the shares of common stock was established by the Board of Directors. The Company's Board of Directors considered numerous objective and subjective factors to determine the fair value of the Company's common stock at each meeting in which awards were approved. The factors included, but were not limited to: (i) contemporaneous third-party valuations of the Company's common stock; (ii) the value of the Company's tangible and intangible assets, (iii) the present value of anticipated future cash flows, (iv) the market value and volatility of publicly-traded entities engaged in substantially similar businesses; (v) recent arm's-length transactions involving the sale or transfer of common and preferred stock, (vi) control premiums, (vii) discounts for lack of marketability, (viii) the Company's operating history, its lack of profitability to date, and anticipated operating results, and (ix) liquidation preferences and other rights held by preferred stockholders.

After the IPO, the Company uses the market closing price of its Class A common stock on the date of grant for the fair value; however, the Company did not grant any stock options during 2022.

The following assumptions were used to estimate the fair value of stock options granted during the years ended December 31, 2021 and 2020:

	2021	2020
Common stock fair value	\$4.97 to \$27.49	\$4.83 to \$7.86
Volatility	50.2% to 51.6%	41.7% to 50.4%
Expected term (in years)	6.04	6.06
Risk-free interest rate	0.52% to 1.08%	0.32% to 1.49%
Expected dividends	0%	0%
Weighted-average grant date fair value	\$8.86	\$2.29

Employee Stock Purchase Plan (the "2021 ESPP")

All stock-based compensation to employees, including the purchase rights issued under the Company's 2021 ESPP, are based on the fair value of the awards on the date of grant. This cost was recognized as an expense following the straight-line attribution method, over the requisite service period and over the offering period, for the purchase rights issued under the 2021 ESPP. The Company used the Black-Scholes option pricing model to measure the fair value of its stock options and the purchase rights issued under the 2021 ESPP. See Note 11. *Stock-based Compensation* for a discussion of the assumptions used to estimate the fair value of awards granted during the year ended December 31, 2022. As per the Agreement and Plan of Merger (the "Merger Agreement") entered on October 10, 2022, the last purchase under the 2021 ESPP occurred on November 15, 2022.

The following assumptions were used to estimate the fair value of ESPP purchase rights using a Black-Scholes option pricing model:

	Year ended December 31, 2022
Volatility	51.47% to 58.50%
Expected term (in years)	0.5 to 1.0
Risk-free interest rate	1.54% to 2.07%
Expected dividends	0%

Convertible Preferred Stock Warrants Liability and Preferred Stock Tranche Option Liability

The Company accounted for contingently redeemable freestanding warrants and preferred stock tranche option to purchase shares of convertible preferred stock as liabilities on its consolidated balance sheets at their estimated fair value. Convertible preferred stock warrants and the preferred stock tranche option were subject to remeasurement at each balance sheet date, and any change in fair value was recognized as fair value adjustment on warrants and preferred stock tranche option in the consolidated statements of operations.

Income Taxes

The Company uses the liability method to account for income taxes, under which deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases as well as for net operating losses and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be realized or settled. The Company recognizes the deferred income tax effects of a change in tax rates in the period of enactment.

The Company records valuation allowances to reduce deferred tax assets to the amount that it believes is more likely than not to be realized. The Company considers all available evidence, both positive and negative, including historical levels of income, expectations and risks associated with estimates of future taxable income, the expected timing of the reversals of existing temporary differences and tax planning strategies in assessing the need for a valuation allowance. Realization of its deferred tax assets is dependent primarily upon future U.S., United Kingdom and Norwegian taxable income.

The calculation of the Company's tax liabilities involves assessing uncertainties in the application of complex tax regulations in multiple tax jurisdictions. In evaluating the exposure associated with various filing positions, the Company records estimated reserves when it is more-likely-than-not that an uncertain tax position will not be sustained upon examination by a taxing authority, including resolutions of any related appeals or litigation processes, based on the technical merits of the position.

The Company recognizes interest and penalties related to unrecognized tax benefits within income tax expense in the consolidated statements of operations and income taxes payable in the consolidated balance sheets.

Net Loss Per Share

The Company computes its basic and diluted net loss per share attributable to common stockholders using the two-class method required for companies with participating securities. Basic net loss per share attributable to common stockholders is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of shares (including Class A common stock and Class B common stock in 2022 and 2021 and common stock in 2020) outstanding during the period. Diluted net loss per share attributable to common stockholders is computed giving effect to all potential dilutive Class A common stock and Class B common stock equivalents outstanding for the period. For purposes of this calculation, options to purchase Class A common stock and Class B common stock in 2022 and 2021, common stock in 2020, unvested RSUs, shares subject to repurchase from early exercised options, unvested common stock and warrants are considered common stock equivalents but have been excluded from the calculation of diluted net loss per share attributable to common stockholders as the effect is antidilutive.

In the event of liquidation, dissolution, distribution of assets or winding-up of the Company, the holders of all classes of common stock have equal rights to receive all the assets of the Company. We have not presented net loss per share under the two-class method for our Class A common stock and Class B common stock in 2022 and 2021 and common stock in 2020 because it would be the same for each class due to equal dividend and liquidation rights for each class.

Comprehensive Loss

Comprehensive loss is comprised of net loss and other comprehensive income (loss). Other comprehensive income (loss) includes foreign currency translation adjustments, net of taxes and net changes in unrealized losses on available-for-sale securities.

Contingencies

Loss contingencies from legal proceedings and claims may occur from intellectual property (IP) infringement claims and product liability, contractual claims, tax and other matters. Accruals are recognized when it is probable that a liability will be incurred and the amount of loss can be reasonably estimated. Legal fees are expensed as incurred.

JOBS Act Accounting Election

The JOBS Act permits an emerging growth company to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies. On June 30, 2022, the last day of the Company's second fiscal quarter in 2022, the market value of the Company's common stock held by non-affiliates exceeded \$700 million. Accordingly, the Company was deemed a large accelerated filer as of December 31, 2022 and can no longer take advantage of the extended timeline to comply with new or revised accounting standards applicable to public companies beginning with this Annual Report on Form 10-K.

Recently Adopted Accounting Pronouncements

In June 2016, the FASB issued Accounting Standards Update (ASU) 2016-13, Financial Instruments—Credit Losses (Topic 326) ("ASU 2016-13"), which changes the existing incurred loss impairment model for financial assets held at amortized cost. The new model uses a forward-looking expected loss method to calculate credit loss estimates. ASU 2016-13 also modified the concept of other-than-temporary impairment and requires credit losses related to available-for-sale debt securities to be recorded through an allowance for credit losses rather than as a reduction in the amortized cost basis of the securities. These changes will result in earlier recognition of credit losses. In February 2020, the FASB issued ASU No. 2020-02, Financial Instruments – Credit Losses (Topic 326), which amends the effective date of the original pronouncement for smaller reporting companies. ASU 2016-13 and its amendments are effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years, though early adoption is permitted. The Company adopted the requirements of ASU 2016-13 as of January 1, 2022 on a modified retrospective basis. The adoption of this standard did not have a material impact on the Company's consolidated financial statements.

In December 2019, the FASB issued ASU No 2019-12, Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes ("ASU 2019-12"). ASU 2019-12 removes certain exceptions to the general principles in Topic 740. ASU 2019-12 is effective for fiscal years beginning January 1, 2022, with early adoption permitted. The Company adopted ASU 2019-12 on January 1, 2022. The adoption of this standard did not have a material impact on the Company's consolidated financial statements.

In November 2021, the FASB issued ASU 2021-10, *Government Assistance (Topic 832): Disclosures by Business Entities about Government Assistance*, which requires business entities to disclose information about certain government assistance including government grants and money contributions they receive. Such disclosure requirements include the nature of the transactions and the related accounting policy used, the line items on the balance sheet and income statement that are affected and the amounts applicable to each financial statement line item and significant terms and conditions of the transactions. ASU 2021-10 was effective for annual periods beginning after December 15, 2021 and was to be applied either prospectively or retrospectively. The Company adopted ASU 2021-10 on January 1, 2022. The adoption of this standard did not have a material impact on the Company's consolidated financial statements.

3. Segment and Revenue Disclosures

Segment Reporting:

The Company operates in a single operating segment. An operating segment is defined as a component of an enterprise for which discrete financial information is available and is regularly reviewed by the chief operating decision maker (CODM). The Company's CODM is its Chief Executive Officer as he is responsible for making decisions regarding resource allocation and assessing the Company's performance.

Revenue by geographic region is based on the delivery address of the customer and is summarized in the below table (in thousands):

	Year ended December 31,			
	2022	2021	2020	
Americas	\$ 122,269	\$ 94,225	\$ 67,966	
EMEA	72,771	60,472	43,847	
APAC	22,472	22,236	15,821	
Total Revenue	\$ 217,512	\$ 176,933	\$ 127,634	

The Company's revenue from the United States was \$107.8 million, \$85.3 million and \$61.0 million, for the years ended 2022, 2021 and 2020, respectively. The Company's revenue from the United Kingdom was £1.7 million, \$17.1 million and \$15.1 million, for the years ended December 31, 2022, 2021 and 2020, respectively. No other individual country exceeded 10% of the Company's total annual revenue.

Disaggregation of revenue

The principal category the Company uses to disaggregate revenues is the nature of the Company's products and services as presented in the consolidated statements of operations, the total of which is reconciled to the consolidated revenue from the Company's single reportable segment. In the following table, revenue is presented by software license and service categories (in thousands):

	Year ended December 31,		
	2022	2021	2020
Revenue:			
Multi-year term licenses	\$ 52,918	\$ 47,343	\$ 29,193
1-year term licenses	34,374	37,268	35,125
Total subscription term licenses	87,292	84,611	64,318
Subscription SaaS, support & maintenance	119,003	85,434	57,833
Perpetual licenses	515	1,695	1,225
Total subscriptions and perpetual licenses	206,810	171,740	123,376
Professional services	10,702	5,193	4,258
Total revenue	\$ 217,512	\$ 176,933	\$ 127,634

Contract assets and deferred revenue

Contract assets and deferred revenue from contracts with customers were as follows (in thousands):

	Year ended December 31,	
	2022	2021
Contract assets	\$ 25,242	\$ 20,508
Deferred revenue	83,319	75,394

Generally, the Company invoices its customers at the time a customer enters into a binding contract. However, the Company may offer invoicing and payment installments for certain multi-year arrangements. In these instances, timing of revenue recognition may differ from the timing of invoicing to customers. Contract assets are recorded when revenue is recognized prior to invoicing. Contract assets are transferred to accounts receivable upon customer invoicing. Beginning of the year contract asset amounts transferred to accounts receivable during the period were \$15.3 million and \$11.0 million for the years ended December 31, 2022 and 2021, respectively.

Deferred revenue is recorded when invoicing occurs before revenue is recognized. Deferred revenue recognized that was included in the deferred revenue balance at the beginning of the year was \$8.2 million and \$49.7 million for the years ended December 31, 2022 and 2021, respectively.

Remaining Performance Obligations

Remaining Performance Obligations ("RPO") represents transaction price allocated to still unsatisfied or partially satisfied performance obligations. Those obligations are recorded as deferred revenue or are contractually stated or committed orders under multi-year billing plans for subscription and perpetual licenses, SaaS, or support and maintenance contracts for which the associated deferred revenue has not yet been recorded.

As of December 31, 2022, total remaining non-cancellable performance obligations under the Company's subscriptions and perpetual license contracts with customers was approximately \$25.1 million. Of this amount, the Company expects to recognize revenue of approximately \$136.3 million or 61%, over the next 12 months, with the balance to be recognized as revenue thereafter.

The Company excludes the transaction price allocated to remaining performance obligations that have original expected durations of one year or less such as professional services and training.

Contract Costs

The following table summarizes the account activity of deferred commissions for the year ended December 31, 2022 and 2021:

	Year ended December 31,			
	2022		2021	
Beginning balance		24,058		14,748
Additions to deferred commissions	\$	21,492	\$	23,274
Amortization of deferred commissions		(15,235)		(13,964)
Ending balance	\$	30,315	\$	24,058

	Year ended December 31,			
	2022		2021	
Deferred commissions, current	\$	9,936	\$	8,457
Deferred commissions, noncurrent		20,379		15,601
Total deferred commissions	\$	30,315	\$	24,058

4. Fair Value Measurements

ASC 820, *Fair Value Measurements*, defines fair value, establishes a framework for measuring fair value and enhances disclosures about fair value measurements. Fair value is defined under ASC 820 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. Valuation techniques used to measure fair value under ASC 820 must maximize the use of observable inputs and minimize the use of unobservable inputs.

The standard describes a fair value hierarchy based on the following three levels of inputs that may be used to measure fair value, of which the first two are considered observable and the last unobservable:

Level 1 – 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 and that are significant to the fair value of the assets or liabilities.

The following table represents the fair value hierarchy for the Company's financial assets and liabilities held by value on a recurring basis (in thousands):

	December 31, 2022			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	\$ 91,376	\$ —	\$ —	\$ 91,376
Total cash equivalents	91,376	—	—	91,376
Commercial paper	—	47,840	—	47,840
Asset-backed securities	—	17,198	—	17,198
Corporate debt securities	—	98,798	—	98,798
U.S. treasury bonds	—	43,412	—	43,412
Total short-term investments	—	207,248	—	207,248
Total cash equivalents and short-term investments	\$ 91,376	\$ 207,248	\$ —	\$ 298,624

	December 31, 2021			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	\$ 98,333	\$ —	\$ —	\$ 98,333
Total cash equivalents	98,333	—	—	98,333
Commercial paper	—	78,448	—	78,448
Asset-backed securities	—	51,587	—	51,587
Corporate debt securities	—	85,084	—	85,084
U.S. treasury bonds	—	26,292	—	26,292
Total short-term investments	—	241,411	—	241,411
Total cash equivalents and short-term investments	\$ 98,333	\$ 241,411	\$ —	\$ 339,744

All of the Company's money market funds are classified as Level 1 in the fair value hierarchy as the valuation is based on observable inputs that reflect quoted prices for identical assets or liabilities in active markets. The Company's preferred stock warrants and preferred stock tranche option liabilities, which were both fully exercised during 2021, were categorized as Level 3 in the fair value hierarchy (See Note 12 *Redeemable Convertible Preferred Stock and related warrants and option*).

The preferred stock warrants and preferred stock tranche option liability values were estimated using assumptions related to the remaining contractual terms, the risk-free interest rates, the volatility of comparable public companies over the remaining terms and the fair value of underlying shares. The significant unobservable inputs used in the fair value measurement include the fair value of the underlying stock at the valuation date and the estimated terms. Increases (decreases) in fair value were recognized in fair value adjustment on warrants and option in the consolidated statements of operations.

The change in the fair value of the warrants was as follows (in thousands):

Balance at January 1, 2020	\$ 1,057
Issuance of warrants for series D preferred stock	127
Increase in fair value of preferred stock warrants	1,217
Balance at January 1, 2021	2,401
Increase in fair value of preferred stock warrants	5,871
Balance at issuance of common stock upon exercise of warrants	(8,272)
Balance at December 31, 2021	\$ —

The change in fair value of the preferred stock tranche option was as follows (in thousands):

Balance at January 1, 2020	\$	—
Issuance of Series E preferred stock tranche option		1,500
Increase in fair value of preferred stock tranche option		6,067
Balance at January 1, 2021		7,567
Increase in fair value of preferred stock tranche option		4,157
Balance at reclassification to redeemable convertible preferred stock		(11,724)
Balance at December 31, 2021	\$	—

For certain of the Company's financial instruments, including cash held in banks, accounts receivable, accounts payable and accrued expense, the carrying amounts approximate fair value due to their short maturities, and are, therefore, excluded from the fair value table above.

5. Cash Equivalents and Short-Term Investments

The amortized cost, unrealized loss and estimated fair value of the Company's cash equivalents and short-term investments as of December 31, 2022 and 2021 were as follows (in thousands):

	December 31, 2022			
	Amortized Cost	Unrealized Gain	Unrealized Loss	Estimated Fair Value
Cash Equivalents:				
Money market funds	\$ 91,376	\$ —	\$ —	\$ 91,376
Total cash equivalents	91,376	—	—	91,376
Short-term investments				
Commercial paper	47,840	—	—	47,840
U.S. treasury bonds	44,154	—	(742)	43,412
Asset-backed securities	17,623	—	(425)	17,198
Corporate debt securities	99,599	1	(802)	98,798
Short-term investments	209,216	1	(1,969)	207,248
Total	\$ 300,592	\$ 1	\$ (1,969)	\$ 298,624

	December 31, 2021			
	Amortized Cost	Unrealized Gain	Unrealized Loss	Estimated Fair Value
Cash Equivalents:				
Money market funds	\$ 98,333	\$ —	\$ —	\$ 98,333
Total cash equivalents	98,333	—	—	98,333
Short-term investments				
Commercial paper	78,448	—	—	\$ 78,448
U.S. treasury bonds	26,444	—	(152)	26,292
Asset-backed securities	51,745	—	(158)	51,587
Corporate debt securities	85,365	—	(281)	85,084
Short-term investments	242,002	—	(591)	241,411
Total	\$ 340,335	\$ —	\$ (591)	\$ 339,744

The Company had \$91.4 million in money market funds and \$209.2 million in short-term investments at December 31, 2022.

The following tables present the contractual maturities of the Company's short-term investments as of December 31, 2022 and 2021 (in thousands):

	December 31, 2022	
	Amortized Cost	Estimated Fair Value
Due within one year	\$ 209,216	\$ 207,248
Due between one to five years	—	—
Total	\$ 209,216	\$ 207,248

	December 31, 2021	
	Amortized Cost	Estimated Fair Value
Due within one year	\$ 142,950	\$ 142,868
Due between one to five years	99,052	98,543
Total	\$ 242,002	\$ 241,411

As of December 31, 2022, the Company did not have any unsettled purchases or unsettled maturities of short-term investments.

The following table presents the breakdown of the short-term investments that have been in a continuous unrealized loss position aggregated by investment category, as of December 31, 2022.

	December 31, 2022					
	Less than 12 months		More than 12 months		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Cash Equivalents:						
Money market funds	\$ 91,376	\$ —	\$ —	\$ —	\$ 91,376	\$ —
Total cash equivalents	91,376	—	—	—	91,376	—
Short-term investments						
Commercial paper	47,840	—	—	—	47,840	—
U.S. Treasury bonds	17,593	(82)	25,819	(660)	43,412	(742)
Asset-backed securities	5,667	(38)	11,531	(387)	17,198	(425)
Corporate debt securities	57,371	(283)	41,427	(519)	98,798	(802)
Short-term investments	128,471	(403)	78,777	(1,566)	207,248	(1,969)
Total	\$ 219,847	\$ (403)	\$ 78,777	\$ (1,566)	\$ 298,624	\$ (1,969)

The Company had short-term investments with a market value of \$156.4 million and \$163.0 million in unrealized loss positions as of December 31, 2022 and 2021. Gross unrealized losses from available-for-sale securities were \$2.0 million and \$0.6 million as of December 31, 2022 and 2021, from 33 and 38 investment positions, respectively. There were no material gross unrealized gains or losses from available-for-sale securities and no material realized gains or losses from available-for-sale securities that were reclassified out of accumulated other comprehensive income for the year ended December 31, 2022 and 2021.

For available-for-sale debt securities that have unrealized losses, the Company evaluates whether (i) the Company has the intention to sell any of these investments, (ii) it is not more likely than not that the Company will be required to sell any of these available-for-sale debt securities before recovery of the entire amortized cost basis and (iii) the decline in the fair value of the investment is due to credit or non-credit related factors. The credit ratings associated with the corporate notes and obligations are mostly unchanged, are highly rated and the issuers continue to make timely principal and interest payments. Based on this evaluation, the Company determined that for short-term investments, there were no material credit or non-credit related impairments as of December 31, 2022 and 2021.

6. Other Balance Sheet Components

Prepaid and other current assets

Prepaid and other current assets consisted of the following (in thousands):

	December 31,	
	2022	2021
Restricted cash	\$ 2,522	\$ 56
Prepaid expenses	8,593	6,824
Other current assets	3,614	2,861
Security deposits, current	81	46
Total prepaids and other current assets	<u>\$ 14,810</u>	<u>\$ 9,787</u>

Restricted cash, all of which is current, totaled \$2.5 million for December 31, 2022 and \$0.1 million for December 31, 2021. Restricted cash is included in prepaid and other current assets in the consolidated balance sheets.

Property and equipment, net

Property and equipment consisted of the following (in thousands):

	December 31,	
	2022	2021
Property and equipment		
Computer equipment and software	\$ 5,332	\$ 5,305
Furniture and fixtures	963	959
Leasehold improvements	2,482	2,735
Total property and equipment	<u>8,777</u>	<u>8,999</u>
Less: accumulated depreciation and amortization	<u>(5,927)</u>	<u>(6,536)</u>
Property and equipment, net	<u>\$ 2,850</u>	<u>\$ 2,463</u>

Depreciation expense for the years ended December 31, 2022, and 2021 was \$1.1 million, and \$1.1 million, respectively.

Accrued expenses

Accrued expenses consisted of the following (in thousands):

	December 31,	
	2022	2021
Accrued bonuses	\$ 5,883	\$ 4,945
Accrued sales commissions	5,899	6,965
Accrued other compensation	13,054	10,449
Accrued professional fees	2,867	1,818
Accrued other	6,608	3,198
Total accrued expenses	<u>\$ 34,311</u>	<u>\$ 27,375</u>

Other liabilities, current

Other liabilities, current consisted of the following (in thousands):

	December 31,	
	2022	2021
Taxes payable	\$ 2,747	\$ 1,935
Other current liabilities	180	323
Total other liabilities, current	<u>\$ 2,927</u>	<u>\$ 2,258</u>

Other liabilities, non-current

Other liabilities, non-current consisted of the following (in thousands):

	December 31,			
	2022		2021	
Interest payable	\$	2,005	\$	1,612
Other non-current liabilities		145		34
Total other liabilities, non-current	\$	2,150	\$	1,646

7. Debt

The following table presents total debt outstanding (in thousands, except interest rates):

	December 31,			
	2022		2021	
	Amount	Interest Rate	Amount	Interest Rate
\$10.0 million March 2019	\$ 10,000	8.0%	\$ 10,000	8.4%
\$10.0 million September 2019	10,000	8.0%	10,000	9.2%
\$10.0 million December 2019	10,000	8.0%	10,000	10.0%
\$10.0 million March 2020	10,000	8.0%	10,000	10.0%
Less debt discount	(389)		(517)	
Total debt, net of debt discount	39,611		39,483	
Less current portion	—		—	
Total long-term debt outstanding	\$ 39,611		\$ 39,483	

In March 2016, the Company entered into a Loan and Security Agreement (the “2016 Agreement”) with TriplePoint Venture Growth BDC Corp. (“TriplePoint”), for term loans of up to \$20.0 million, secured by substantially all the Company’s assets, excluding its intellectual property. The 2016 Agreement provided for cash advances over a period of forty-two months in three tranches; the first of which was exercised in March 2016, in the amount of \$10.0 million. The second draw in the amount of \$5.0 million, was exercised in August 2016. These 2016 cash advances were repaid in 2016, 2018, and 2019 with the final payment paid in 2021. In connection with the 2016 Agreement, the Company issued TriplePoint warrants to purchase an aggregate of 195,992 shares of Series C redeemable convertible preferred stock with an exercise price equal to the lower of (i) \$5.36 per share and (ii) the lowest price per share of the next preferred stock financing offering. The Company determined that the initial fair value of the Series C warrants was \$0.2 million (see Note 12 *Redeemable Convertible Preferred Stock and related warrants and option*).

In November 2017, the 2016 Agreement was amended (the “First Amendment”) to change the interest rate on the existing term loan facility to an annual rate of the prime rate plus 8.75% (however, in no event will the prime rate be less than 3.25%). In addition, the First Amendment modified the prepayment terms such that a prepayment in full would represent the amount equal to the total of all interest payments that would have accrued and been payable from the date of the prepayment at the then existing interest rate, through the stated maturity date of the loan had it remained outstanding and been paid in accordance with its terms. There were no additional fees incurred in connection with the First Amendment.

In March 2019, the Company executed a Second Amendment to the 2016 Agreement (the "Second Amendment"). The Second Amendment provided for new cash advances for up to \$50.0 million in four parts, all of which were individual promissory notes. In March, September and December 2021, the Company received cash advances in the amount of \$10.0 million each for a total of \$30.0 million. The proceeds from the loans were used to finance the Company's general corporate needs. Each advance under the Second Amendment has its own term, up to forty-two months. At the end of the payment term of each advance, an end-of-term payment equal to 8.0% of the draw would become due. The payments on all cash advances are interest only for various amounts of time, depending on the advance. The interest rates for the March, September and December 2021 draws were based on the prime rate plus 2.90%, prime rate plus 3.70%, and prime rate plus 4.50%, respectively (however, in no event will the prime rate be less than 5.50%). The remaining principal will be due at the end of the term of the applicable advance. The term loan facility contains customary representations and warranties and customary affirmative and negative covenants applicable to the Company, including, among other things, restrictions on indebtedness, liens, investments, sales, transfers or disposals of assets, dividends and other distributions. In connection with the Second Amendment and the related drawdowns during 2019, the Company paid direct fees of \$0.3 million and issued a warrant to purchase an aggregate of 161,724 shares of Series D redeemable convertible preferred stock with an exercise price equal to the lesser of (i) \$9.275 per share and (ii) the lowest price per share of the next preferred stock financing offering. The Company determined that the initial fair value of the Series D warrants was \$6.4 million (see Note 12 *Redeemable Convertible Preferred Stock and related warrants and option*).

In March 2020, the Company executed the Amended Restated Plain English Growth Capital Loan and Security Agreement with TriplePoint and TriplePoint Capital LLC (the "A&R Loan Agreement"), which amends and restates the 2016 Agreement. In April 2020, the Company exercised its option to receive another cash advance of \$10.0 million. In connection with the advance, the Company issued to TriplePoint a warrant to purchase 53,908 shares of the Company's Series D redeemable convertible preferred stock with an exercise price equal to the lesser of (i) \$9.275 per share and (ii) the lowest price per share of the next preferred stock financing offering. The Company determined the initial fair value of the warrants at issuance was \$6.1 million. The fair value of the warrant is being amortized, as interest expense, over the term of the loan using the effective interest method. The payments on all cash advances are interest only, with interest rates for the March, September, December 2021 and April 2020 draws being based on the prime rate plus 2.90%, prime rate plus 3.70%, prime rate plus 4.50%, and prime rate plus 4.50%, respectively. However, in no event will the prime rate be less than 5.50%. The principal will be due at the end of the term of the respective advance. The A&R Loan Agreement is secured by substantially all the Company's assets, excluding its intellectual property, which was subject to a negative pledge. The A&R Loan Agreement contains customary representations and warranties and customary affirmative and negative covenants applicable to the Company, including, among other things, restrictions on indebtedness, liens, investments, dividends and other distributions. The A&R Loan Agreement included an option to extend the maturity and prepayment term dates by an additional 12 months if certain criteria were met. In April 2020, the Company met the criteria to extend the maturity and prepayment dates for the four outstanding advances and elected to do so. The A&R Loan Agreement was accounted for as a modification and not an extinguishment as the terms of the Company's outstanding debt were not substantially different from the original terms. The Company amortizes both the debt issuance fees and the fair value adjustment of the warrants issued in connection with debt issuances as interest expense using the effective interest method over the remaining term of the loan.

In September 2021, the Company executed an amendment to the Amended Restated Plain English Growth Capital Loan and Security Agreement with TriplePoint and TriplePoint Capital LLC (the "A&R Loan Agreement"), which amends and restates the 2016 Agreement. The payments on all cash advances are interest only. The amended A&R Loan Agreement became effective once the registration statement in connection with the initial public offering was declared effective on September 16, 2021. The key provisions of the amendment include: (1) a covenant requiring the maintenance of a \$20.0 million cash balance when an event of default exists, (2) change in the interest rate for outstanding term loan to be eight percent (8.00%) per annum on the existing loans, (3) extension of the maturity dates by twenty-four months, (4) change in the prepayment penalties and (5) a change in the prepayment premium. The principal will be due at the end of the term of the respective advance. The A&R Loan Agreement is secured by substantially all the Company's assets, excluding its intellectual property, which was subject to a negative pledge. The A&R Loan Agreement contains customary representations and warranties and customary affirmative and negative covenants applicable to the Company, including, among other things, restrictions on indebtedness, liens, investments, dividends and other distributions. The A&R Loan Agreement was accounted for as a modification and not an extinguishment as the terms of the Company's outstanding debt were not substantially different from the original terms. The Company amortizes the debt issuance costs as interest expense using the effective interest method over the remaining term of the loan. As of December 31, 2022 and December 31, 2021, accrued interest for the end-of-term payments was \$2.0 million and \$1.6 million, respectively. The effective interest rate on debt was 8.70% and 10.75% for the years ended December 31, 2022 and December 31, 2021, respectively. As of December 31, 2022, the Company was in compliance with the covenants set forth in the Amended and Restated Loan Agreement.

Future principal payments on outstanding borrowings as of December 31, 2022 are as follows (in thousands):

Years Ending	
2023	\$ —
2024	—
2025	30,000
2026	10,000

8. Leases

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)*. ASU 2016-02 requires that a lessee recognize the assets and liabilities that arise from operating leases. A lessee should recognize in the statement of financial position a liability to make lease payments (the lease liability) and a right-of-use (ROU) asset representing its right to use the underlying asset for the lease term. For leases with a term of 12 months or less, a lessee is permitted to make an accounting policy election by class of underlying asset not to recognize lease assets and lease liabilities. In transition, lessees and lessors are required to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach. The Company adopted ASU 2016-02 and related amendments on January 1, 2021, using the optional transition method.

The Company primarily has operating leases for office space. The leases expire on various dates between 2023 and 2029, some of which could include options to extend the lease. In 2014, the Company leased office space in San Francisco for a term of seven years with an option to extend. In 2021, the company exercised its option to extend the San Francisco lease to 2029.

Lease right-of-use assets and liabilities are recognized at the commencement date based on the present value of lease payments over the lease term. As these leases do not provide an implicit rate, ForgeRock uses its incremental borrowing rate based on the information available at the lease's commencement date in determining the present value of lease payments. The Company considers information including, but not limited to, the lease term, the Company's credit rating and interest rates of similar debt instruments with comparable credit ratings and security interests. The lease right-of-use assets are increased by any lease prepayments made and reduced by any lease incentives such as tenant improvement allowances. Options to extend the lease term are included in the lease term when it is reasonably certain that ForgeRock will exercise the extension option. The Company's operating leases typically include non-lease components such as common-area maintenance costs. ForgeRock has elected to include non-lease components with lease payments for the purpose of calculating lease right-of-use assets and liabilities, to the extent that they are fixed. Non-lease components that are not fixed are expensed as incurred as variable lease payments. Leases with a term of one year or less are not recognized on the Company's consolidated balance sheet, while the associated lease payments are recorded in the consolidated statements of operations on a straight-line basis over the lease term.

The following table summarizes the components of lease expense, which are included in operating expenses in the Company's statements of operations and comprehensive loss (in thousands):

	Year ended December 31,	
	2022	2021
Operating lease expense	\$ 2,671	\$ 2,375
Variable lease expense	662	703
Total lease expense	\$ 3,333	\$ 3,078

Variable lease payments include amounts relating to common area maintenance, real estate taxes and insurance and are recognized in the statements of operations and comprehensive loss as incurred.

The following table summarizes supplemental information related to leases:

	Year ended December 31, 2022	
Cash paid for amounts included in the measurement of lease liabilities		
Operating cash flows from operating leases (in thousands)	\$	1,625
Weighted-average remaining lease term (years)		
Operating leases		6.3
Weighted-average discount rate		
Operating leases		5.6 %

The following table summarizes the maturities of lease liabilities as of December 31, 2022 (in thousands):

2023	\$	2,499
2024		2,138
2025		1,912
2026		1,753
Thereafter		4,824
Total future minimum lease payments		13,126
Less: imputed interest		(2,017)
Present value of future minimum lease payments		11,109
Less: current portion of operating lease liability		(1,902)
Long-term operating lease liability	\$	9,207

9. Commitments and Contingencies

Letters of Credit

As of December 31, 2022 and 2021 the Company had outstanding letters of credit under an office lease agreement that totaled \$0.6 million, which primarily guaranteed early termination fees in the event of default. The letters of credit are not collateralized.

Purchase Commitments

In the ordinary course of business, the Company enters into various purchase commitments primarily related to third-party cloud hosting and data services, information technology operations and marketing events. Total noncancelable purchase commitments as of December 31, 2022 were approximately \$50.9 million as follows:

2023	\$	25,884
2024		25,000
Total purchase commitments	\$	50,884

Acquisition-Related Costs and Contingencies

The completion of the Merger with Thoma Bravo remains subject to customary closing conditions. As part of the Merger, the Company has incurred \$6.2 million in merger-related expenses through December 31, 2022 and expects to incur additional costs through the closing of the transaction, including approximately \$30.9 million that are primarily contingent on the consummation of the Merger. These expenditures include banker fees, legal fees and other third-party professional fees.

Employee Benefit Plans

The Company has a 401(k) Savings Plan (the 401(k) Plan) which qualifies as a deferred salary arrangement under Section 401(k) of the Internal Revenue Code. Under the 401(k) Plan, participating employees may elect to contribute up to 00% of their eligible compensation, subject to certain limitations. The Company, at its sole discretion may make matching contributions without limitation.

The Company provides pension plans in Australia, Canada, France, New Zealand, Norway, Singapore and the United Kingdom, adhering to statutory requirements where applicable. In countries in which pension plans are government mandated, the Company withholds the appropriate percentage of employee earnings and remits to the plan administrator. In several countries, the Company is legally required to make a minimum contribution to the plan ranging from 1% to 12% of an employee's earnings.

The 401(k) Plan and other pension plans that the Company provides or is mandated to provide are all defined contribution plans. For the years ended December 31, 2022, and 2021 the Company's pension contributions were \$0.0 million, and \$3.4 million, respectively.

Warranties and Guarantees

The Company's software and software-as-a-service (SaaS) offerings are generally warrantied to perform materially in accordance with the Company's help documentation under normal use and circumstances. Additionally, the Company's arrangements generally include provisions for indemnifying customers against liabilities if its software or SaaS offering infringes upon a third party's intellectual property rights. Furthermore, the Company may also incur liabilities if it breaches the security or confidentiality obligations in its arrangements. To date, the Company has not incurred significant costs and has not accrued a liability in the accompanying consolidated financial statements as a result of these obligations.

The Company has entered into service-level agreements with a majority of its customers defining levels of support response times and SaaS uptimes, as applicable. In a very small percentage of the Company's arrangements, the Company allows customers to terminate their agreements if the Company fails to meet those levels. In such instances, the customer would be entitled to a refund of prepaid unused subscription or support and maintenance fees. To date, the Company has not experienced any significant failures to meet defined support response times or SaaS uptimes pursuant to those agreements and, as a result, the Company has not accrued any liabilities related to these agreements in the consolidated financial statements.

From time to time, the Company enters into certain types of contracts in which it assumes contingent indemnification obligations in respect to third-party claims. These contracts primarily relate to agreements under which the Company indemnifies customers and partners for claims arising from intellectual property infringement. The terms of such obligations vary, and the overall maximum amount of the obligations cannot be reasonably estimated. Historically, the Company has not been obligated to make any payments for these obligations, and no liabilities have been recorded for these obligations as of December 31, 2022 and 2021.

Legal Matters

From time to time, the Company may be a party to various legal proceedings and claims that arise in the ordinary course of business. The Company makes a provision for a liability relating to legal matters when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. The Company maintains insurance to cover certain actions and believes that resolution of such claims, charges, or litigation will not have a material impact on the Company's financial position, results of operations, or liquidity.

10. Income Taxes

The components of loss before income taxes are as follows (in thousands):

	December 31,		
	2022	2021	2020
Domestic	\$ (38,670)	\$ (25,163)	\$ (29,166)
International	(25,924)	(21,721)	(12,063)
Total loss before income taxes	<u>\$ (64,594)</u>	<u>\$ (46,884)</u>	<u>\$ (41,229)</u>

The provision for income taxes consisted of the following (in thousands):

	December 31,		
	2022	2021	2020
Current:			
Federal	\$ —	\$ —	\$ —
State	52	56	27
Foreign	1,626	828	538
Total	1,678	884	565
Deferred:			
Federal	—	—	—
State	—	—	—
Foreign	—	—	—
Total	—	—	—
Provision for income taxes	\$ 1,678	\$ 884	\$ 565

For the years ended December 31, 2022, 2021 and 2020, the federal statutory income tax rate of 21% differs from the effective tax rate primarily due to the valuation allowance.

A reconciliation of the statutory federal income tax rate to our effective tax rate is as follows (in thousands):

	December 31,		
	2022	2021	2020
Pre-tax loss	\$ (64,594)	\$ (46,884)	\$ (41,229)
Federal tax at statutory rate	(13,565)	(9,846)	(8,658)
Stock-based compensation	(3,996)	(3,102)	24
Revaluation of preferred warrants and option	—	2,110	1,542
Foreign provision differential	(5,127)	(5,382)	(670)
Change in valuation allowance	27,624	18,389	8,936
State taxes	(1,202)	(1,343)	(785)
R&D tax credits	(5,362)	—	—
Sec 162(m) adjustment	2,354	—	—
Acquisition related cost	1,296	—	—
Other	(344)	58	176
Tax expense	\$ 1,678	\$ 884	\$ 565

Significant components of the Company's net deferred tax assets and liabilities were as follows (in thousands):

	December 31,	
	2022	2021
Deferred tax assets:		
Stock-based compensation	\$ 3,732	\$ 2,756
Accruals and reserves	2,943	3,693
Deferred revenue	900	228
Net operating loss carryforwards – domestic	29,405	30,221
Net operating loss carryforwards – foreign	38,180	28,245
Property and equipment	264	307
Operating lease liabilities	2,230	2,529
Capitalized research and development	11,326	—
R&D tax credits	5,363	—
Tax basis intangible assets	2,758	3,202
Other	378	—
Total deferred tax assets	97,479	71,181
Valuation allowance	(91,281)	(65,404)
Deferred tax assets, net of valuation allowance	6,198	5,777
Deferred tax liabilities:		
Operating lease right-of-use assets	(2,007)	(2,489)
Deferred costs	(4,191)	(3,074)
Other	—	(214)
Total deferred tax liabilities	(6,198)	(5,777)
Net deferred tax assets/(liabilities)	\$ —	\$ —

The Company regularly assesses the ability to realize its deferred tax assets and establishes a valuation allowance if it is more-likely-than-not that some portion of the deferred tax assets will not be realized. Due to the weight of objectively verifiable negative evidence, including its history of losses, the Company believes that it is more likely than not that its deferred tax assets will not be realized. The valuation allowance increased by approximately \$25.9 million and \$18.4 million for the years ended December 31, 2022 and 2021, respectively.

As of December 31, 2022, the Company had approximately \$121.2 million and \$65.9 million of federal and state net operating loss carryforwards, respectively. The federal net operating loss carryforwards will expire at various dates beginning in 2031 if not utilized, and the state net operating loss carryforwards will expire at various dates beginning in 2023, but mainly beginning in 2032, if not utilized. As of December 31, 2022, the Company had approximately \$160.0 million of foreign net operating loss carryforwards, predominantly in Norway and the United Kingdom. The foreign net operating loss carryforwards do not expire. As of December 31, 2022, the Company had approximately \$6.6 million and \$0.9 million of U.S. Federal and California R&D credits, respectively. The federal R&D credits will expire at various dates beginning in 2033 if not utilized, and the California R&D credits do not expire.

As of December 31, 2022, the Company had uncertain tax positions of \$1.8 million and \$0.2 million respectively, related to U.S. Federal and California R&D credits and \$0.1 million of uncertain tax positions related to foreign jurisdictions. As of December 31, 2021, the Company had uncertain tax positions of \$4.2 million and \$1.5 million related to U.S. Federal and California R&D credits, respectively and \$0.1 million related to foreign jurisdictions. As of December 31, 2022, the unrecognized tax benefits related to U.S. Federal and California R&D credits, if realized, would not impact the effective tax rate because of the valuation allowances and the uncertain tax position related to foreign jurisdictions as of December 31, 2022 would impact the effective tax rate if realized. During 2022, the Company completed a research and development tax credit study for US federal and California, which resulted in immaterial changes to the research and development tax credit amount. However, the completion of the study resulted in a partial recognition of the deferred tax asset for research and development tax credit, which did not impact the effective tax rate due to the valuation allowance. The Company records interest and penalties related to uncertain tax positions as a component of income tax expense. The Company did not accrue any material interest or penalties during 2022 and 2021.

A reconciliation of beginning and ending amount of unrecognized tax benefit is as follows (in thousands):

	December 31,			
	2022	2021	2020	
Gross amount of unrecognized tax benefits as of the beginning of the year	\$ 5,786	\$ 2,811	\$ 2,184	
Additions based on tax positions related to a prior year	—	853	—	
Additions based on tax positions related to the current year	963	2,154	627	
Reductions based on tax positions related to a prior year	(4,687)	(32)	—	
Reductions resulting from statute of limitation lapses	(19)	—	—	
Gross amount of unrecognized tax benefits as of the end of the year	\$ 2,043	\$ 5,786	\$ 2,811	

The Company files income tax returns in the U.S. and foreign jurisdictions and is subject to income tax examinations by taxing authorities in federal, state and foreign jurisdictions with varying statutes of limitations. The federal statute of limitations is three years and the state statutes of limitations are three to four years. Due to net operating loss carryforwards, the federal and state statutes of limitations remain open for tax years 2011 and thereafter. Foreign statute of limitations vary by country with open tax years ranging from 2018 - 2022. The Company is currently under audit for income tax in a single foreign jurisdiction. The audit is ongoing but is not expected to materially impact the consolidated financial statements.

Under Section 382 of the Tax Reform Act of 1986, the Company's domestic net operating loss carryforwards may be limited in certain circumstances. Events which cause limitations in the amount of net operating losses that the Company may utilize in any one year include, but are not limited to, a cumulative ownership change of more than 50%, as defined, over a three-year period. The Company completed a Section 382 study in 2022 and determined that its domestic net operating loss carryforwards were not materially limited. The impact of any limitations that may be imposed due to such ownership changes has not been determined for the year ended 2022.

On December 22, 2017, the United States passed the Tax Cuts and Jobs Act (the "Tax Act") which enacts a broad range of changes to the US Tax Code. The Tax Act subjects a U.S. shareholder to tax on global intangible low-taxed income (GILTI) earned by certain foreign subsidiaries. The Company recognizes the expense related to GILTI in the year the tax is incurred.

In addition, the Tax Act amended the Section 174 rules relating to the federal tax treatment of R&D expenditures paid or incurred during the year. The new Section 174 rules, beginning with the 2022 tax year, require taxpayers to capitalize and amortize specific R&D expenditures over a period of five years and fifteen years for domestic and foreign R&D, respectively. As such, qualified R&D expenditures for the current year have been capitalized and amortized in accordance with the amended Section 174 rules.

11. Stock-based Compensation

A summary of the Company's stock-based compensation expense as recognized on the consolidated statements of operations is presented in thousands below:

	Years ended December 31,		
	2022	2021	2020
Cost of revenue	\$ 2,852	\$ 617	\$ 166
Research and development	6,738	1,924	1,307
Sales and marketing	12,044	3,495	1,794
General and administrative	11,126	4,630	2,917
Total stock-based compensation expense	\$ 32,760	\$ 10,666	\$ 6,184

2021 Equity Incentive Plan

In September 2021, the Company's board of directors adopted the Company's 2021 Equity Incentive Plan (the "2021 Plan") as a successor to the 2012 Equity Incentive Plan (the "2012 Plan") with the purpose of granting stock-based awards to employees, directors, officers and consultants such as stock options, restricted stock awards and restricted stock units (RSUs). The Company's compensation committee administers the 2021 Plan. A total of 7,276,000 shares of Class A common stock were initially available for issuance under the 2021 Plan. In addition, the shares reserved for issuance under the 2021 Plan will also include a number of shares of Class A common stock equal to the number of shares of Class B common stock subject to awards granted under the 2012 Plan that, on or after the termination of the 2012 Plan, expire or otherwise terminate without having been exercised in full or are forfeited to or repurchased by the Company (provided that the maximum number of shares that may be added to the 2021 Plan pursuant to this sentence is 14,913,309 shares). The number of shares of the Company's Class A common stock available for issuance under the 2021 Plan is subject to an annual increase on the first day of each fiscal year beginning on January 1, 2022, equal to the lesser of: (i) 8,085,000 shares; (ii) 5% of the outstanding shares of all classes of the Company's common stock as of the last day of the immediately preceding year; or (iii) such other amount as the Company's board of directors may determine. As of December 31, 2022, there were 6,100,343 stock-based awards issued and outstanding and 5,309,365 shares available for issuance under the 2021 Plan.

2012 Equity Incentive Plan

The 2012 Plan, which was amended in March 2021, was terminated in September 2021, in connection with the adoption of the 2021 Plan, and stock-based awards are no longer granted under the 2012 Plan. However, the 2012 Plan will continue to govern the terms and conditions of the outstanding awards previously granted thereunder. As of December 31, 2022, the Company has not issued any stock appreciation rights.

2021 Employee Stock Purchase Plan

In September 2021, the Company's board of directors adopted and the stockholders approved the 2021 Employee Stock Purchase Plan (the "2021 ESPP"), which became effective concurrent with the completion of the IPO, and established an initial reserve of 1,617,000 shares of common stock. The 2021 ESPP provides for annual increases in the number of shares available for issuance on the first day of each fiscal year beginning on January 1, 2022, equal to the lesser of: (i) 1,617,000 shares; (ii) 1% of the outstanding shares of all classes of the Company's common stock as of the last day of the immediately preceding year; or (iii) such other amount determined by the plan administrator. As of December 31, 2022 and 2021, 461,941 and zero shares had been purchased under the 2021 ESPP.

Except for the initial offering period, the ESPP provides for a 12-month offering period beginning November 15 and May 15 of each year, and each offering period will consist of two six-month purchase periods. The initial offering period began on October 1, 2021 and ended on November 15, 2022. On each purchase date, eligible employees will purchase the shares at a price per share equal to 85% of the lesser of (1) the fair market value of the Company's common stock on the offering date, or (2) the fair market value of its common stock on the purchase date. If such fair market value decreases from the offering date to the applicable purchase date, the offering period will terminate after the purchase of shares and all participants will be automatically enrolled in the next offering period (a "rollover event"). The first purchase period of the initial offering period began on October 1, 2021 and ended on May 15, 2022 after the first purchase was completed as a result of a rollover event.

As per the Agreement and Plan of Merger (the "Merger Agreement") entered on October 10, 2022, the last purchase under the 2021 ESPP occurred on November 15, 2022.

Restricted Stock Units

The Company grants RSUs that generally vest over one to four years. The weighted-average grant-date fair value of RSUs granted during the years ended December 31, 2022 and 2021 was \$6.3 million and \$47.2 million, respectively.

A summary of the Company's unvested RSUs and activity for the year ended December 31, 2022 is as follows:

	Shares	Weighted Average Grant Date Fair Value
Outstanding as of December 31, 2021	1,702,724	\$ 27.49
Granted	5,269,990	18.28
Vested	(415,876)	27.26
Canceled	(456,495)	19.43
Outstanding at December 31, 2022	6,100,343	20.16

As of December 31, 2022, and 2021 there was \$113.0 million and \$45.4 million of total unrecognized compensation, which will be recognized over the remaining weighted-average vesting period of 3.0 years using the straight-line method.

Stock Options

A summary of the Company's stock option activity and related information for the year ended December 31, 2022 is as follows:

	Number of Awards Outstanding	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (in thousands)
Balances as of December 31, 2021	14,219,587	\$ 5.10	6.4	\$ 306,981
Options granted	—			
Options exercised	(3,445,917)	2.60		
Options canceled	(450,313)	8.92		
Balances as of December 31, 2022	10,323,357	5.81	6.2	173,953
As of December 31, 2022				
Vested and exercisable	7,939,709	4.53	5.8	145,168

As of December 31, 2022, there was \$13.6 million of unrecognized compensation expense related to non-vested stock options granted under the Plan. That expense is expected to be recognized over a weighted-average period of 0.8 years.

2021 Employee Stock Purchase Plan

All stock-based compensation to employees, including the purchase rights issued under the Company's 2021 ESPP, is based on the fair value of the awards on the date of grant. This cost is recognized as an expense following the straight-line attribution method, over the requisite service period and over the offering period, for the purchase rights issued under the 2021 ESPP. See Note 2. *Summary of Significant Accounting Policies* for a discussion of the assumptions used to estimate the fair value of the purchase rights.

12. Redeemable Convertible Preferred Stock and Related Warrants and Option

Upon closing of the IPO, all 42,778,408 shares of the Company's then-outstanding redeemable convertible preferred stock, including the option to purchase 1,935,789 shares which was exercised in April 2021, automatically converted to a one-to-one basis to shares of Class B common stock.

Preferred Stock

In connection with the IPO, the Company amended and restated its certificate of incorporation, which authorized 100,000,000 shares of undesignated preferred stock, with a par value of \$0.001. As of December 31, 2022, there were 100,000,000 shares of preferred stock authorized and zero shares of preferred stock outstanding.

Preferred Stock Warrants

On September 24, 2021, after the closing of the Company's IPO, the warrants to purchase 411,624 shares of preferred stock, all related to the Company's debt, were exercised in a cashless exercise for a net amount of \$44,085 Class B common stock.

13. Stockholders' Equity

Common Stock

The Company has two classes of common stock: Class A common stock and Class B common stock. In connection with the IPO, the Company amended and restated its certificate of incorporation and authorized 4,000,000,000 shares of Class A common stock and 500,000,000 shares of Class B common stock. The shares of Class A common stock and Class B common stock are identical, except with respect to voting rights. Each share of Class A common stock is entitled to one vote. Each share of Class B common stock is entitled to ten votes. Class A and Class B common stock have a par value of \$0.001 per share, and are referred to collectively as the Company's common stock throughout the notes to the consolidated financial statements, unless otherwise noted. Holders of common stock are entitled to receive any dividends as may be declared from time to time by the board of directors.

Shares of Class B common stock may be converted to Class A common stock at any time at the option of the stockholder. Shares of Class B common stock automatically convert to Class A common stock at the earlier of (i) the 7th anniversary of the filing and effectiveness of the Company's amended and restated certificate of incorporation in connection with the IPO, (ii) when the outstanding shares of the Company's Class B common stock represent less than 5% of the combined voting power of the Company's Class A common stock and Class B common stock, and (iii) the affirmative vote of the holders of 66 2/3% of the voting power of the Company's outstanding Class B common stock.

Immediately prior to the completion of the IPO, all shares of common stock then outstanding were reclassified into Class B common stock.

14. Net Loss Per Share

Since the Company was in a loss position for all 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 following outstanding potentially dilutive ordinary shares were excluded from the computation of diluted net loss per share attributable to ordinary stockholders for the periods presented, as their effect would have been anti-dilutive:

	Year ended December 31,		
	2022	2021	2020
		<i>(in thousands)</i>	
Redeemable convertible preferred stock	—	—	40,843
Stock options	8,124	10,601	6,289
Restricted stock units	634	155	351
Convertible preferred stock warrants and option	—	—	2,347
Other awards including contingently issuable shares	—	55	100
Total anti-dilutive shares	8,758	10,811	49,930

In the event of liquidation, dissolution, distribution of assets or winding-up of the Company, the holders of all classes of common stock have equal rights to receive all the assets of the Company. We have not presented net loss per share under the two-class method for our Class A common stock and Class B common stock because it would be the same for each class due to equal dividend and liquidation rights for each class.

15. Related Party Transactions

In April 2021, the Company sold an aggregate of 1,935,789 shares of our Series E-1 redeemable convertible preferred stock to a related party investor at a purchase price of \$0.33 per share, for an aggregate purchase price of \$20.0 million.

KKR & Co. Inc. ("KKR") is a U.S.-based investment firm. Funds controlled by KKR held approximately 5.2% and 5.4% of the Company's capital stock as of December 31, 2022 and 2021, respectively. KKR has representation on the Company's board of directors. During the years ended December 31, 2022 and 2021, the Company recognized revenue of \$5.4 million and \$4.6 million with KKR affiliates, respectively. The Company had \$1.3 million and \$1.5 million in aggregate accounts receivable recorded related to these agreements at December 31, 2022 and 2021, respectively.

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

None

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Annual Report on Form 10-K. The term “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”), means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to provide reasonable assurance that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of the end of the period covered by this Annual Report on Form 10-K, our disclosure controls and procedures were effective at the reasonable assurance level.

Management’s Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rule 13a-15(f) of the Exchange Act. Our management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (“2013 framework”). Our internal control over financial reporting includes policies and procedures that provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external reporting purposes in accordance with U.S. generally accepted accounting principles. Based on this evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2022. In addition, our ability to maintain an effective internal control environment has not been impacted by the COVID-19 pandemic. Our independent registered public accounting firm, Ernst & Young LLP, has issued an audit report with respect to our internal control over financial reporting, which appears in Part II, Item 8 of this Annual Report on Form 10-K, and is incorporated herein by reference.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting identified in connection with the evaluation required by paragraph (d) of Exchange Act Rules 13a-15 or 15d-15 that occurred during the fiscal year ended December 31, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls and Procedures

Our management, including our Chief Executive Officer and Chief Financial Officer, believes that our disclosure controls and procedures and internal control over financial reporting are designed to provide reasonable assurance of achieving their objectives and are effective at the reasonable assurance level. However, management 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. These inherent limitations include the realities that judgments in decision making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of the controls. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions, or the degree of compliance with 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.

Item 9B. Other Information

Not applicable.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspection

Not applicable.

Part III

Item 10. Directors, Executive Officers and Corporate Governance

Executive Officers and Directors

The information required by this item is incorporated by reference to the definitive proxy statement relating to our 2023 annual meeting of stockholders, which will be filed with the SEC no later than 120 days after December 31, 2022 (the "2023 Proxy Statement").

Code of Business Conduct and Ethics

Our board of directors has adopted a code of business conduct and ethics that applies to all of our employees, officers and directors. The full text of our code of conduct is available on our investor relations website at investor.forgerock.com under "Governance Documents" We intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding amendments to, or waiver from, a provision of our code of conduct by posting such information on the website address and location specified above.

Item 11. Executive Compensation

The information required by this item is incorporated by reference to the 2023 Proxy Statement.

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

The information required by this item is incorporated by reference to the 2023 Proxy Statement.

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

The information required by this item is incorporated by reference to the 2023 Proxy Statement.

Item 14. Principal Accounting Fees and Services

The information required by this item is incorporated by reference to the 2023 Proxy Statement.

Part IV

Item 15. Exhibits, Financial Statement Schedules.

Documents filed as part of this Annual Report on Form 10-K are as follows:

1. Consolidated Financial Statements
Our Consolidated Financial Statements are listed in the "Index to Consolidated Financial Statements" under Part II, Item 8 of this Annual Report on Form 10-K.
2. Financial Statement Schedules
Financial statement schedules have been omitted because they are not required, not applicable, not present in amounts sufficient to require submission of the schedule, or the required information is shown in the Consolidated Financial Statements or notes thereto.

Exhibits

The following documents are incorporated by reference or are filed with this Annual Report on Form 10-K, in each case as indicated below.

EXHIBIT INDEX

Exhibit Number	Description	Form	File Number	Exhibit	Filing Date
2.11+	Agreement and Plan of Merger, dated October 10, 2022, among Project Fortress Parent, LLC, Project Fortress Merger Sub, Inc. and ForgeRock, Inc.	8-K	001-40787	2.1	October 11, 2022
3.1	Amended and Restated Certificate of Incorporation of the registrant.	10-Q	001-40787	3.1	November 12, 2021
3.2	Amended and Restated Bylaws of the registrant.	10-Q	001-40787	3.2	November 12, 2021
4.1	Form of Class A common stock certificate of the registrant.	S-1/A	333-259016	4.1	September 7, 2021
4.2	Amended and Restated Investors' Rights Agreement, among the registrant and certain holders of its capital stock, dated as of April 6, 2020, as amended on April 21, 2021.	S-1	333-259016	4.2	August 23, 2021
4.3	Description of Capital Stock.	10-K	001-40787	4.3	March 9, 2022
10.1+	Form of Indemnification Agreement between the registrant and each of its directors and executive officers.	S-1	333-259016	10.1	August 23, 2021
10.2+	ForgeRock, Inc. 2021 Equity Incentive Plan and related form agreements.	S-1/A	333-259016	10.2	September 7, 2021
10.3+	ForgeRock, Inc. 2021 Employee Stock Purchase Plan and related form agreements.	S-1/A	333-259016	10.3	September 7, 2021
10.4+	ForgeRock, Inc. 2012 Equity Incentive Plan and related form agreements.	S-1/A	333-259016	10.4	September 7, 2021
10.5+	ForgeRock, Inc. 2021 Executive Incentive Compensation Plan and related form agreements.	S-1	333-259016	10.5	August 23, 2021
10.6+	Outside Director Compensation Policy.	S-1	333-259016	10.6	August 23, 2021
10.7+	Change in Control and Severance Policy and related form agreements.	S-1	333-259016	10.7	August 23, 2021
10.8+	Confirmatory Employment Letter between the registrant and Francis Rosch, dated as of September 2, 2021.	S-1/A	333-259016	10.8	September 7, 2021
10.9+	Confirmatory Employment Letter between the registrant and John Fernandez, dated as of September 2, 2021.	S-1/A	333-259016	10.9	September 7, 2021
10.10+	Confirmatory Employment Letter between the registrant and Pete Angstadt, dated as of September 2, 2021.	S-1/A	333-259016	10.10	September 7, 2021
10.11+	Confirmatory Employment Letter between the registrant and Peter Barker, dated as of March 7, 2022.	10-K	001-40787	10.11	March 9, 2022
10.12+*	Confirmatory Employment Letter between the registrant and Samuel Fleischmann, dated as of October 4, 2021.				
10.13	Amended and Restated Plain English Growth Capital Loan and Security Agreement with TriplePoint Venture Growth BDC Corp. and TriplePoint Capital LLC, dated as of March 11, 2020.	S-1/A	333-259016	10.11	September 7, 2021
10.14	Office Lease Agreement between CA-Mission Street Limited Partnership and the registrant, dated as of November 19, 2014.	S-1	333-259016	10.14	August 23, 2021

Exhibit Number	Description	Form	File Number	Exhibit	Filing Date
10.15	First Amendment to Lease between the registrant and CA-Mission Street Limited Partnership, dated November 8, 2021.	10-Q	001-40787	10.9	November, 12, 2021
10.16††	Form of Voting Agreement, dated as of October 10, 2022, by and among Project Fortress Parent, L.L.C. ForgeRock, Inc. and certain stockholders of ForgeRock, Inc.	8-K	001-40787	10.1	October 11, 2022
21.1*	List of subsidiaries of the registrant.				
23.1*	Consent of Independent Registered Public Accounting Firm.				
24.1*	Power of Attorney (included in signature pages hereto.)				
31.1*	Certification of Principal Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
31.2*	Certification of Principal Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
32.1*†	Certifications of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
101	The following financial statements from the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2022, in Inline XBRL: (i) Consolidated Balance Sheets , (ii) Consolidated Statements of Operations , (iii) Consolidated Statements of Comprehensive Loss , (iv) Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' Equity (Deficit) , (v) Consolidated Statements of Cash Flows , and (vi) Notes to Consolidated Financial Statements .				
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101).				

* Filed herewith.
+ Indicates management contract or compensatory plan.
†† Schedules and exhibits omitted pursuant to Item 601(b)(2) of Regulation S-K. ForgeRock will furnish supplementally a copy of any omitted schedule or exhibit to the SEC upon request. ForgeRock may request confidential treatment pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended, for any schedules or exhibits so furnished.
† The certifications attached as Exhibit 32.1 that accompany this Annual Report on Form 10-K are deemed furnished and not filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of ForgeRock, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Annual Report on Form 10-K, irrespective of any general incorporation language contained in such filing.

Item 16. Form 10-K Summary

None

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized on March 1, 2023.
FORGEROCK, INC.

By: /s/ Francis Rosch
Francis Rosch
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Francis Rosch, John Fernandez and Sam Fleischmann, and each of them, as his true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for him 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, this Annual Report on Form 10-K has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
<u>/s/ Francis Rosch</u> Francis Rosch	President, Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	March 1, 2023
<u>/s/ John Fernandez</u> John Fernandez	Chief Financial Officer and Executive Vice President of Global Operations <i>(Principal Financial Officer and Principal Accounting Officer)</i>	March 1, 2023
<u>/s/ Johanna Flower</u> Johanna Flower	Director	March 1, 2023
<u>/s/ Bruce Golden</u> Bruce Golden	Director	March 1, 2023
<u>/s/ Arun Mathew</u> Arun Mathew	Director	March 1, 2023
<u>/s/ Alex Ott</u> Alex Ott	Director	March 1, 2023
<u>/s/ Jeff Parks</u> Jeff Parks	Director	March 1, 2023
<u>/s/ Rinki Sethi</u> Rinki Sethi	Director	March 1, 2023

Signature	Title	Date
/s/ Maria Walker Maria Walker	Director	March 1, 2023
/s/ Warren Weiss Warren Weiss	Director	March 1, 2023
/s/ Dave Welsh Dave Welsh	Director	March 1, 2023

October 4, 2021

Sam Fleischmann
via ForgeRock, Inc.

Dear Sam,

This letter agreement (the “**Agreement**”) is entered into between Sam Fleischmann (“**you**”) and ForgeRock, Inc. (“**ForgeRock**” or “**we**”), effective as of the date signed below (the “**Effective Date**”), to confirm the terms and conditions of your employment with the Company.

1. **Title/Position.** You will continue to serve as ForgeRock’s Chief Legal Officer. You also will continue to report to the Chief Executive Officer and will perform the duties and responsibilities customary for such position and such other related duties as are lawfully assigned. By signing this Agreement, you confirm that you continue to have no contractual commitments or other legal obligations that would prohibit you from performing your duties for ForgeRock.

2. **Base Salary.** As of ForgeRock’s initial public offering (“**IPO**”), your annual base salary will be \$353,496, which will be payable, less any applicable withholdings, in accordance with ForgeRock’s normal payroll practices. Your annual base salary will be subject to review and adjustment from time to time by our Board of Directors (the “**Board**”) or its Compensation Committee (the “**Committee**”), as applicable, in its sole discretion. We anticipate that the first such Committee annual review will occur in the first quarter of 2022.

3. **Annual Bonus.** As of the IPO, you will have the opportunity to earn a target annual cash bonus equal to \$142,758, based on achieving performance objectives established by the Board or Committee, as applicable, in its sole discretion and payable upon achievement of those objectives as determined by the Committee. Your annual bonus opportunity and the applicable terms and conditions may be adjusted from time to time by our Board or the Committee, as applicable, in its sole discretion.

4. **Equity Awards.**

- a. It will be recommended to the Board or the Committee that on the date of the pricing of ForgeRock’s IPO by the pricing committee of the Board you be granted a stock option under our 2021 Equity Incentive Plan (the “**2021 Plan**”) covering a numbers of shares with a “value” of \$354,900, rounded down to the nearest share (the “**IPO Option**”). For purposes of the IPO Option, “value” means the grant date accounting fair value of such award as will be reported in ForgeRock’s financial statements. The exercise price of the IPO Option will be the per share IPO price determined by the pricing committee. The IPO option will vest as to 25% of the shares on the anniversary of the grant date and 1/48 of the total shares each month thereafter, subject to continued service.
 - b. Further, in first quarter of 2022, it will be recommended to the Board or the Committee that you be granted restricted stock units under the 2021 Plan covering a numbers of shares with a “value” of \$828,100, rounded down to the nearest share (the “**2022 RSUs**”). For purposes of the 2022 RSUs, “value” means the average of the closing price per share of ForgeRock’s common stock for the 30-trading day period ending on the date of grant. The 2022 RSUs will vest with a one-year cliff, and quarterly thereafter over approximately four years with vesting occurring on ForgeRock’s standard quarterly vesting date.
-

- c. You will continue to be eligible to receive additional equity awards pursuant to any plans or arrangements ForgeRock may have in effect from time to time. The Board or Committee, as applicable, will determine in its sole discretion whether you will be granted any such equity awards and the terms of any such award in accordance with the terms of any applicable plan or arrangement that may be in effect from time to time. Your equity awards outstanding as of the Effective Date will continue in effect on their existing terms.

5. *Employee Benefits.* You will continue to be eligible to participate in the benefit plans and programs established by ForgeRock for its employees from time to time, subject to their applicable terms and conditions, including without limitation any eligibility requirements. ForgeRock reserves the right to modify, amend, suspend or terminate the benefit plans and programs it offers to its employees at any time.

6. *Severance.* You are a participant in ForgeRock's Change in Control and Severance Policy (the "**CIC/Severance Policy**"). The CIC/Severance Policy and the participation agreement under the CIC/Severance Policy that you signed specify the severance payments and benefits you may become entitled to receive in connection with certain qualifying terminations of your employment with ForgeRock.

7. *Confidentiality Agreement.* The employment relationship between you and the company will also be governed by ForgeRock's general employment policies and practices, which may be in effect from time to time, including those relating to protection of confidential information and assignment of inventions, except that when the terms of this letter differ from or are in conflict with ForgeRock's general employment practices or policies, this letter will control. ForgeRock has a firm policy against its employees using any trade secrets or other proprietary information of third parties in the course of performing their duties for the company. During your employment with ForgeRock, you may not disclose to ForgeRock or use, or induce ForgeRock to use, any trade secrets or other proprietary information of others, including your prior employer. To protect the interests of ForgeRock, your acceptance of this Agreement confirms that the terms of the At-Will Employment, Confidential Information, Invention Assignment, and Arbitration Agreement you previously signed with ForgeRock (the "**Confidentiality Agreement**") still applies.

8. *At-Will Employment.* ForgeRock is an "at-will" employer. That means that both you and the company have the right to terminate your employment at any time, with or without advance notice, and for any reason, with or without cause, or for no reason at all. Likewise, the terms of your employment may be altered at any time (including changes in your duties, changes in your pay and demotions), with or without cause, at the discretion of ForgeRock. This paragraph is intended to be the complete and final statement regarding the circumstances under which your employment may be terminated, which means that it supersedes any prior agreements or representations. If this paragraph conflicts with any practice or policy of ForgeRock, now or in the future, the terms of this paragraph will control. This at-will nature of your employment cannot be altered except by a written agreement signed by you and an officer of ForgeRock.

9. *Miscellaneous.* This Agreement, together with the Confidentiality Agreement, the CIC/Severance Policy and any outstanding equity awards granted to you by ForgeRock and the applicable award agreements thereunder, constitute the entire agreement between you and ForgeRock regarding the material terms and conditions of your employment, and they supersede and replace all prior negotiations, representations or agreements between you and ForgeRock. This Agreement may be modified only by a written agreement signed by you and a duly authorized officer of ForgeRock.

[Signature page follows]

To confirm the terms and conditions of your employment with ForgeRock, please sign and date in the spaces indicated and return this Agreement to me.

Sincerely,
FORGEROCK, INC.

By: /s/ Fran Rosch
Fran Rosch, Chief Executive Officer

Agreed to and accepted:

/s/ Sam Fleischmann
Sam Fleischmann

Dated: October 4, 2021

SUBSIDIARIES OF THE REGISTRANT

Name of Subsidiary	Jurisdiction of Incorporation
ForgeRock AS	Norway
ForgeRock AUS PTY. LTD.	Australia
ForgeRock Canada Inc.	Canada
ForgeRock Deutschland GmbH	Germany
ForgeRock France SAS	France
ForgeRock Limited	United Kingdom
ForgeRock NZ Limited	New Zealand
ForgeRock SGP, Pte. Ltd.	Singapore
ForgeRock US, Inc.	Delaware

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statement (Form S-8 No. 333-263398) pertaining to the 2021 Equity Incentive Plan and 2021 Employee Stock Purchase Plan of ForgeRock, Inc.,
- (2) Registration Statement (Form S-8 No. 333-261256) of ForgeRock, Inc., pertaining to the 2012 Equity Incentive Plan of ForgeRock, Inc., and
- (3) Registration Statement (Form S-8 No. 333-259615) of ForgeRock, Inc., pertaining to the 2021 Employee Stock Purchase Plan, 2021 Equity Incentive Plan and 2012 Equity Incentive Plan of ForgeRock, Inc.,

of our reports dated March 1, 2023, with respect to the consolidated financial statements of ForgeRock, Inc., and the effectiveness of internal control over financial reporting of ForgeRock, Inc., included in this Annual Report (Form 10-K) of ForgeRock, Inc. for the year ended December 31, 2022.

/s/ Ernst & Young LLP

San Jose, California
March 1, 2023

**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO
EXCHANGE ACT RULES 13a-14(a) AND 15d-14(a),
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Francis Rosch, certify that:

1. I have reviewed this Annual Report on Form 10-K of ForgeRock, 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, 2023

FORGEROCK, INC.

By: /s/ Francis Rosch

Name: Francis Rosch

Title: Chief Executive Officer and Director
(Principal Executive Officer)

**CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO
EXCHANGE ACT RULES 13a-14(a) AND 15d-14(a),
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, John Fernandez, certify that:

1. I have reviewed this Annual Report on Form 10-K of ForgeRock, 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, 2023

FORGEROCK, INC.

By: /s/ John Fernandez

Name: John Fernandez

Title: Chief Financial Officer and Executive Vice President of Global Operations
(Principal Financial Officer)

**CERTIFICATIONS OF PRINCIPAL EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Francis Rosch, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report on Form 10-K of ForgeRock, Inc. for the year ended December 31, 2022 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that the information contained in such Annual Report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of ForgeRock, Inc.

Date: March 1, 2023

By: /s/ Francis Rosch
Name: Francis Rosch
Title: Chief Executive Officer and Director
(Principal Executive Officer)

I, John Fernandez, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report on Form 10-K of ForgeRock, Inc. for the year ended December 31, 2022 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that the information contained in such Annual Report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of ForgeRock, Inc.

Date: March 1, 2023

By: /s/ John Fernandez
Name: John Fernandez
Title: Chief Financial Officer and Executive Vice President of Global Operations
(Principal Financial Officer)