

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

FORM 10-K

Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the Annual Period Ended December 31, 2022

Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the transition period from _____ to _____
Commission file number 001-35662

QUALYS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

919 E. Hillsdale Boulevard, 4th Floor, Foster City, California 94404

(Address of principal executive offices, including zip code)

(650) 801-6100

(Registrant's telephone number, including area code)

77-0534145
(I.R.S. Employer
Identification Number)

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

| Title of each class | Trading Symbol(s) | Name of exchange on which registered |
|---|-------------------|--------------------------------------|
| Common stock, \$0.001 par value per share | QLYS | NASDAQ Stock Market |

Securities registered pursuant to section 12(g) of the Act: None

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

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

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

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company
Emerging growth company

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

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

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

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

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

As of June 30, 2022, the aggregate market value of voting shares of common stock held by non-affiliates of the registrant was \$4,288 million based on the last reported sale price of the registrant's common stock on June 30, 2022. Shares of common stock held by each executive officer and director and by each person who owns 10% or more of the outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

The number of shares of the registrant's common stock outstanding as of February 16, 2023 was 37,009,478 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Proxy Statement for its 2023 Annual Meeting of Stockholders are incorporated by reference in 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.

Qualys, Inc.
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RISK FACTOR SUMMARY

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

- Our quarterly and annual operating results may vary from period to period, which could result in our failure to meet expectations with respect to operating results and cause the trading price of our stock to decline.
- If we do not successfully anticipate market needs and opportunities or are unable to enhance our solutions and develop new solutions that meet those needs and opportunities on a timely or cost-effective basis, we may not be able to compete effectively and our business and financial condition may be harmed.
- If we fail to continue to effectively scale and adapt our platform to meet the performance and other requirements of our customers, our operating results and our business would be harmed.
- If we are unable to renew existing subscriptions for our IT, security and compliance solutions, sell additional subscriptions for our solutions and attract new customers, our operating results would be harmed.
- Our current research and development efforts may not produce successful products or enhancements to our platform that result in significant revenue, cost savings or other benefits in the near future.
- Our platform, website and internal systems may be subject to intentional disruption or other security incidents that could result in liability and adversely impact our reputation and future sales.
- Our sales cycle can be long and unpredictable, and our sales efforts require considerable time and expense. As a result, revenues may vary from period to period, which may cause our operating results to fluctuate and could harm our business.
- Adverse economic conditions or reduced IT spending may adversely impact our business.
- Our IT, security and compliance solutions are delivered from 11 shared cloud platforms, and any disruption of service at these facilities would interrupt or delay our ability to deliver our solutions to our customers which could reduce our revenues and harm our operating results.
- We face competition in our markets, and we may lack sufficient financial or other resources to maintain or improve our competitive position.
- If our solutions fail to detect vulnerabilities or incorrectly detect vulnerabilities, our brand and reputation could be harmed, which could have an adverse effect on our business and results of operations.
- If we are unable to continue the expansion of our sales force, sales of our solutions and the growth of our business would be harmed.
- We rely on third-party channel partners to generate a substantial amount of our revenues, and if we fail to expand and manage our distribution channels, our revenues could decline and our growth prospects could suffer.
- A significant portion of our customers, channel partners and employees are located outside of the United States, which subjects us to a number of risks associated with conducting international operations, and if we are unable to successfully manage these risks, our business and operating results could be harmed.
- If the market for cloud solutions for IT, security and compliance does not evolve as we anticipate, our revenues may not grow and our operating results would be harmed.
- Our business and operations have continued to grow since inception, and if we do not appropriately manage any future growth, or are unable to improve our systems and processes, our operating results may be negatively affected.
- A portion of our revenues are generated by sales to government entities, which are subject to a number of challenges and risks.
- Undetected software errors or flaws in our solutions could harm our reputation, decrease market acceptance of our solutions or result in liability.
- Our solutions could be used to collect and store personal information of our customers’ employees or customers, and therefore privacy and other data handling concerns could result in additional cost and liability to us or inhibit sales of our solutions.
- Our solutions contain third-party open source software components, and our failure to comply with the terms of the underlying open source software licenses could restrict our ability to sell our solutions.
- We use third-party software and data that may be difficult to replace or cause errors or failures of our solutions that could lead to lost customers or harm to our reputation and our operating results.
- Failure to protect our proprietary technology and intellectual property rights could substantially harm our business and operating results.
- Assertions by third parties of infringement or other violations by us of their intellectual property rights could result in significant costs and harm our business and operating results.

NOTE REGARDING FORWARD-LOOKING STATEMENTS

In addition to historical information, this Annual Report on Form 10-K contains “forward-looking” statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Forward-looking statements generally relate to future events or our future financial or operating performance. In some cases, it is possible to identify forward-looking statements because they contain words such as “anticipates,” “believes,” “contemplates,” “continue,” “could,” “estimates,” “expects,” “future,” “intends,” “likely,” “may,” “plans,” “potential,” “predicts,” “projects,” “seek,” “should,” “target,” or “will,” or the negative of these words or other similar terms or expressions that concern our expectations, strategy, plans or intentions. Forward-looking statements contained in this Annual Report on Form 10-K include, but are not limited to, statements about:

- our financial performance, including our revenues, costs, expenditures, growth rates, operating expenses and ability to generate positive cash flow to fund our operations and sustain profitability;
- anticipated technology trends, such as the use of cloud solutions;
- our ability to adapt to changing market conditions;
- the impact of the ongoing COVID-19 pandemic on our business;
- economic and financial conditions, including volatility in foreign exchange rates, inflation concerns, rising interest rates, recessionary fears, supply chain disruption, and global labor shortage;
- our ability to diversify our sources of revenues, including selling additional solutions to our existing customers and our ability to pursue new customers;
- the effects of increased competition in our market;
- our ability to innovate and enhance our cloud solutions and platform and introduce new solutions;
- our ability to effectively manage our growth;
- our anticipated investments in sales and marketing, our infrastructure, new solutions, research and development, and acquisitions;
- maintaining and expanding our relationships with channel partners;
- our ability to maintain, protect and enhance our brand and intellectual property;
- costs associated with defending intellectual property infringement and other claims;
- our ability to attract and retain qualified employees and key personnel, including sales and marketing personnel;
- our ability to successfully enter new markets and manage our international expansion;
- our expectations, assumptions and conclusions related to our income tax provision, our deferred tax assets and our effective tax rate; and
- other factors discussed in this Annual Report on Form 10-K in the sections titled “Risk Factors” and “Management's Discussion and Analysis of Financial Condition and Results of Operations.”

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 results, events and circumstances reflected in these forward-looking statements are subject to risks, uncertainties, assumptions, and other factors including those described in Part I, Item 1A (Risk Factors) of this Annual Report on Form 10-K and those discussed in other documents we file with the U.S. Securities and Exchange Commission (SEC). 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 used herein. We cannot provide assurance 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.

You should not rely on forward-looking statements as predictions of future events. Except as required by law, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements, and we undertake no obligation to update any forward-looking statements to reflect events or circumstances after the date of such statements.

Qualys, the Qualys logo and other trademarks and service marks of Qualys appearing in this Annual Report on Form 10-K are the property of Qualys. This Annual Report on Form 10-K also contains trademarks and trade names of other businesses that are the property of their respective holders. We have omitted the ® and ™ designations, as applicable, for the trademarks used in this Annual Report on Form 10-K.

PART I

Item 1. Business

Overview

We are a pioneer and leading provider of a cloud-based platform delivering information technology (IT), security and compliance solutions. Our integrated suite of IT, security and compliance solutions delivered on our Qualys Cloud Platform enables our customers to: 1) identify and manage their IT assets across on-premises, endpoints, cloud, containers, and mobile environments; 2) collect and analyze large amounts of IT security data; 3) discover and prioritize vulnerabilities; 4) recommend and implement remediation actions; and 5) verify the implementation of such actions. This helps organizations protect their systems and applications from ever-evolving cyber-attacks and helps achieve compliance with internal policies and external regulations.

Our cloud solutions address the growing IT, security and compliance complexities and risks that are amplified by the dissolving boundaries between internal and external IT infrastructures and web environments, the rapid adoption of cloud computing, containers and serverless IT models, and the proliferation of geographically dispersed IT assets. Organizations use our integrated suite of solutions to cost-effectively obtain a unified view of their IT asset inventory as well as security and compliance posture across globally-distributed IT infrastructures as our solution offers a single platform for information technology, information security, application security, endpoint, developer security and cloud teams.

IT infrastructures are more complex and globally-distributed today than ever before, as organizations of all sizes increasingly rely upon a myriad of interconnected information systems and related IT assets, such as servers, databases, web applications, routers, switches, desktops, laptops, other physical and virtual infrastructure, and numerous external networks and cloud services. In this environment, new and evolving digital technologies intended to improve organizations' operations can also increase vulnerability to cyber-attacks, which can expose sensitive data, damage IT and physical infrastructures, and result in serious financial or reputational consequences. In addition, the rapidly increasing amount of data and devices in IT environments makes it more difficult to identify and remediate vulnerabilities in a timely manner. The predominant approach to IT security has been to implement multiple disparate security products that can be costly and difficult to deploy, integrate and manage and may not adequately protect organizations. As a result, we believe there is a large and growing opportunity for comprehensive cloud-based IT, security and compliance solutions delivered in a single platform.

We designed our Qualys Cloud Platform to transform the way organizations secure and protect their IT infrastructures and applications. Our cloud platform offers an integrated suite of solutions that automates the lifecycle of asset discovery and management, security assessments, and compliance management for an organization's IT infrastructure and assets, whether such infrastructure and assets reside inside the organization, on their network perimeter, on endpoints or in the cloud. Since inception, our solutions have been designed to be delivered through the cloud and to be easily and rapidly deployed on a global scale, enabling faster implementation and lower total cost of ownership than traditional on-premises enterprise software products. Our customers, ranging from some of the largest global organizations to small businesses, are served from our globally-distributed cloud platform, enabling us to rapidly deliver new solutions, enhancements and security updates.

We believe that our cloud platform provides our customers with unique advantages, including:

- *No hardware to buy or manage.* There is no infrastructure or software to buy and maintain thus reducing our customers' operating costs; all services are accessible in the cloud via web interface. Qualys operates and maintains the platform.
- *Real-time visibility in one place, anytime and anywhere.* Our customers can conveniently see their security and compliance posture across their global IT asset inventory in one browser window, without plugins or a virtual private network (VPN), whenever and wherever Internet access is available.
- *Easy global scanning.* Our customers can easily perform scans on geographically distributed and segmented networks at the perimeter, behind the firewall, on dynamic cloud environments and on endpoints.
- *Seamless scaling.* Our cloud platform is a scalable, comprehensive, and end-to-end solution for the IT, security and compliance needs of our customers. Our customers can seamlessly add new coverage, users and services after they have deployed our platform.
- *Up to date resources.* Qualys has one of the largest knowledge bases of vulnerability signatures in the industry. All security updates are made in real-time.
- *Data stored securely.* Data is securely stored and processed in a multi-tiered architecture of load-balanced servers. Our encrypted databases are physically and logically secured.

We were founded and incorporated in December 1999 with a vision of transforming the way organizations secure and protect their IT infrastructure and applications and initially launched our first cloud solution, Vulnerability Management (VM), in 2000. As VM gained acceptance, we introduced additional solutions to help customers manage increasing IT, security and compliance requirements. Today, the suite of solutions that we offer on our cloud platform and refer to as the Qualys Cloud Apps helps our customers protect a range of assets across on-premises, endpoints, cloud, containers, and mobile environments. These Cloud Apps address and include:

- *IT Security:* Vulnerability Management (VM), Vulnerability Management, Detection and Response (VM DR), Threat Protection (TP), Continuous Monitoring (CM), Patch Management (PM), Multi-Vector Endpoint Detection and Response (EDR), Certificate Assessment (CRA), SaaS Detection and Response (SaaS DR), Secure Enterprise Mobility (SEM), Custom Assessment and Remediation (CAR), Context Extended Detection and Response (XDR), Network Detection and Response (NDR);
- *Compliance:* Policy Compliance (PC), Security Configuration Assessment (SCA), PCI Compliance (PCI), File Integrity Monitoring (FIM), Security Assessment Questionnaire (SAQ), Out-of-Band Configuration Assessment (OCA);
- *Web Application Security:* Web Application Scanning (WAS), Web Application Firewall (WAF);
- *Asset Management:* Global AssetView (GAV), Cybersecurity Asset Management (CSAM), Certificate Inventory (CRI); and
- *Cloud/Container Security:* Cloud Inventory (CI), Cloud Security Assessment (CSA), Container Security (CS).

We provide our solutions through a software-as-a-service model, primarily with renewable annual subscriptions. These subscriptions require customers to pay a fee in order to access each of our cloud solutions. We generally invoice our customers for the entire subscription amount at the start of the subscription term, and the invoiced amounts are treated as deferred revenues and are recognized ratably over the term of each subscription. We continue to experience revenue growth from our existing customers as they renew and purchase additional subscriptions, as well as from the addition of new customers to our cloud platform.

Our Qualys Cloud Platform is currently used by over 10,000 customers worldwide, including a majority of each of the Forbes Global 100 and Fortune 100. Our revenues increased to \$489.7 million in 2022 from \$411.2 million in 2021 and \$363.0 million in 2020.

Our Platform

Our cloud platform consists of a suite of IT security, compliance, web application security, asset management and cloud and container security solutions, which we refer to as the Qualys Cloud Apps, that leverages our shared and extensible core services and our highly scalable multi-tenant cloud infrastructure. We also provide open application program interfaces, or APIs, and other developer tools that allow third parties to embed our technology into their solutions and build applications on our cloud platform.

Our cloud platform utilizes physical and virtual sensors, and cloud agents that provide our customers with continuous visibility enabling customers to respond to threats immediately. Customers can extend visibility to all known IT infrastructure using our Out-of-Band Configuration Assessment sensor for systems that are air-gapped or otherwise difficult to assess.

The Qualys Cloud Platform automatically gathers and analyzes security and compliance data in a scalable, state-of-the-art backend. The technology underlying our cloud infrastructure enables us to ingest, process, analyze and store a high volume of sensor data coming from our agents, scanners and passive analyzers, and correlate information at very high speeds in a distributed manner for millions of devices.

Unified Qualys Cloud Platform

One Platform, One View | Integrated capabilities | FedRAMP Authorized



Our cloud platform is delivered to our customers via our 11 global shared cloud platforms, or via our private platform offering, Qualys Private Cloud Platform (PCP), for customers or partners that want the platform to reside within the customer's shared cloud platform. The PCP is a standalone version of our multi-layer, multi-tenant services architecture and is a fully integrated turnkey solution, making it more scalable, cost effective and faster to deploy within a customer's shared cloud platform. Solutions delivered through our PCP are typically on the same subscription basis as solutions delivered through our shared platform. Our PCP utilizes hardware and software owned by us and is physically located on the customer's premises. The customer is not permitted to take possession of the software or access the software code. We also offer our PCP as a subscription-based platform services to the customer using a virtual version of our software. This virtualized PCP allows us to extend our security and compliance solutions without the complexity and cost associated with deploying traditional enterprise software. We also offer Private Cloud Platform Appliance (PCPA), an on-premises IT, security and compliance solution packaged in a form-factor for medium-sized companies.

Qualys Core Services

Our core services enable integrated workflows, management and real-time analysis and reporting across all of our IT, security and compliance solutions for our customers inside their organizations, on the perimeter, on endpoints or in the cloud.

Our core services constitute dynamic and customizable dashboards and centrally managed, self-updating integrated Cloud Apps, through a natively integrated unified platform. Our interactive, dynamic dashboards and cloud platform allow our customers to aggregate and correlate all of their IT, security and compliance data in one place, drill down into details, and generate reports customized for different audiences. Our cloud platform's powerful Elasticsearch clusters enable customers to instantly find detailed data on any asset.

Our core services include:

- *Asset Tagging and Management.* Enables customers to easily identify, categorize and manage large numbers of assets in highly dynamic IT environments and automates the process of inventory management and hierarchical organization of IT assets. Built on top of this core service is the Qualys GAV framework, which is a global asset inventory service enabling our customers to search for information on any IT asset, scaling to millions of assets for customers of all sizes, helping IT and security personnel to search IT assets and maintain an up-to-date inventory on a continuous basis.
- *Reporting and Dashboards.* A highly configurable reporting engine that provides customers with reports and dashboards based on their roles and access privileges.
- *Questionnaires and Collaboration.* A configurable workflow engine that enables customers to easily build questionnaires and capture existing business processes and workflows to evaluate controls and gather evidence to validate and document compliance.
- *Remediation and Workflow.* An integrated workflow engine that allows customers to automatically generate helpdesk tickets for remediation and to manage compliance exceptions based on customer-defined policies, enabling subsequent review, commentary, tracking and escalation. This engine automatically distributes remediation tasks to IT administrators upon scan completion, tracks remediation progress and closes open tickets once patches are applied and remediation is verified in subsequent scans.
- *Big Data Correlation and Analytics Engine.* Provides Elasticsearch capabilities for indexing, searching and correlating large amounts of security and compliance data with other security incidents and third-party security intelligence data. Embedded workflows enable customers to quickly assess risk and access information for remediation, incident analysis and forensic investigations.
- *Alerts and Notifications.* Creates email notifications to alert customers of new vulnerabilities, malware infections, scan completion, open trouble tickets and system updates.

Qualys Cloud Apps

Many organizations have an array of heterogeneous point tools that do not interoperate well and are difficult and costly to maintain and integrate, making it difficult for Chief Information Officers (CIOs) and Chief Information Security Officers (CISOs) to obtain a single, unified view of their organization's security and compliance posture. The Qualys Cloud Platform and its Cloud Apps help organizations escape this tool-fragmentation dilemma by drastically simplifying their security stacks and regaining unimpeded visibility across their IT environment.

The Cloud Apps are self-updating, centrally managed and tightly integrated, and cover a broad range of functionality in areas such as IT security, compliance, web application security, asset management and cloud and container security solutions.

From inception through December 31, 2021, we have added the following Cloud Apps: VM, PC, PCI, WAS, WAF, CM, SAQ, TP, FIM, GAV, SCA, CS, CI, CSA, CRI, CRA, OCA, PM, VMDR, EDR, SaaS DR, SEM, and CSAM. In 2022, we introduced CAR, XDR and NDR.

We believe that our applications are easy to use and provide our customers with a high level of control because our applications are part of one platform, share a common user interface, utilize the same scanners and agents, access the same collected data, and leverage the same user permissions.

Our customers can subscribe to one or more of our IT, security and compliance Apps based on their initial needs and expand their subscriptions over time to new areas within their organization or to additional Qualys solutions. For VMDR, we offer four editions of our Qualys Cloud App: Enterprise for large enterprises, Express for medium-sized businesses, Express Lite for small-sized businesses, and Scan-on-Behalf for Scan-on-Behalf customers. For all other Qualys Cloud Apps, we offer four editions: Enterprise for large enterprises, Express for medium-sized businesses, Express Lite for small-sized businesses, and Consulting Edition for consultants, consulting organizations and Managed Service Providers (MSPs).

Many of our customers use multiple Cloud Apps to develop a more complete understanding of their respective environment's IT, security and compliance posture. The Qualys Cloud Platform currently provides the following Cloud Apps to our customers:

IT Security

Vulnerability Management (VM): VM is an industry leading and award-winning solution that automates network auditing and vulnerability management across an organization, including network discovery and mapping, asset management, vulnerability reporting and remediation tracking. Driven by our comprehensive knowledge base of known vulnerabilities, VM enables cost-effective protection against vulnerabilities without substantial resource deployment.

Vulnerability Management, Detection and Response (VMDR): VMDR enables organizations to automatically discover every asset in their environment, including unmanaged assets appearing on the network, inventory all hardware and software, and classify and tag critical assets. VMDR continuously assesses these assets for the latest vulnerabilities and applies the latest threat intel analysis to prioritize actively exploitable vulnerabilities. VMDR automatically detects the latest superseding patch for the vulnerable asset and easily deploys it for remediation. Finally, VMDR quantifies risk across vulnerabilities, assets and groups of assets helping organizations proactively reduce cyber risk exposure and track cyber risk reduction over time. By delivering all this in a single app workflow, VMDR automates the entire process and significantly accelerates an organization's ability to respond to threats, thus preventing possible exploitation.

Threat Protection (TP): Thousands of new vulnerabilities are disclosed annually. With TP, customers can pinpoint their most critical threats and identify what they need to remediate first. TP continuously correlates external threat information against a customer's vulnerabilities and IT asset inventory, so customers know which threats pose the greatest risk to their organization at any given time. As Qualys engineers continuously validate and rate new threats from internal and external sources, TP's live feed displays the latest vulnerability disclosures and maps them to customers' impacted IT assets. Customers can see the assets affected by each threat, and drill down into details.

Continuous Monitoring (CM): Built on top of VM, CM is a next-generation cloud service that can detect network threats and unexpected changes before they turn into breaches. Whenever CM spots an anomaly in a network, it immediately sends targeted, informative alerts to the right people for each situation and each machine. CM tracks what happens throughout public perimeters, internal networks, and cloud environments - anywhere in the world.

Patch Management (PM): PM provides automated patch deployment capabilities for Windows, Linux, Mac and third party software by correlating vulnerabilities and the right set of remediation including patches and configuration fixes. It continuously gathers and uploads telemetry about installed software, open vulnerabilities and missing patches to the Qualys Cloud Platform. The resulting shared visibility of assets and their posture enables IT and security teams to collaborate using common vulnerability-centric terminology and provides a consistent data set to analyze, prioritize, deploy and verify patches more efficiently.

Multi-Vector Endpoint Detection and Response (EDR): Traditional endpoint detection and response solutions focus only on endpoint activity to detect attacks. As a result, they lack the full context to analyze attacks accurately. This leads to an incomplete picture and a high rate of false positives and negatives, requiring organizations to use multiple point solutions and large incident response teams. Qualys fills the gaps by bringing a new multi-vector approach and the unifying power of its highly scalable Cloud Platform to EDR, providing vital context and comprehensive visibility to the entire attack chain, from prevention to detection to response. EDR unifies different context vectors like asset discovery, rich normalized software inventory, end-of-life visibility, vulnerabilities and exploits, misconfigurations, in-depth endpoint telemetry, and network reachability with a powerful backend to correlate it all for accurate assessment, detection and response.

Certificate Assessment (CRA): CRA assesses digital certificates and Transport Layer Security (TLS) configurations. CRA generates certificate instance grades using a straightforward methodology that allows administrators to assess often overlooked server SSL/TLS configurations without having to become SSL experts. It also identifies out-of-policy certificates with weak signatures or key length and shows how many unique Certificate Authorities were found in the environment and how many certificates each one issued.

SaaS Detection and Response (SaaS DR): SaaS DR leverages the Qualys Cloud platform to provide continuous visibility into SaaS applications such as Office 365, Salesforce and Zoom for configuration posture management, activity monitoring and data security insights.

Secure Enterprise Mobility (SEM): SEM extends the power of VMDR for in-depth inventory of mobile devices and their data, real time vulnerability and misconfiguration detection, and built-in remediation with patch orchestration for all Android and iOS/iPadOS devices across the enterprise.

Custom Assessment and Remediation (CAR): Custom Assessment and Remediation opens the Qualys Cloud Platform for security architects allowing the creation of custom scripts in popular scripting languages, user-defined controls and automation, all seamlessly integrated within existing programs to quickly assess, respond to and remediate threats across global hybrid environments.

Context Extended Detection and Response (XDR): XDR provides context and clarity to enterprise security operations through risk-focused, single pane of glass visibility and control to improve enterprise-wide threat detection and incident response. It leverages the Cloud Platform's response capabilities - patching, fixing misconfigurations, killing processes and network connections, and quarantining hosts - to comprehensively remediate cyber security threats identified by Qualys XDR.

Network Detection and Response (NDR): Network detection and response monitors network traffic and analyzes it using deep learning artificial intelligence (AI) to detect cyber threats in data centers and in the public cloud. The solution is able to detect both known and publicly undisclosed threats in real time.

Compliance

Policy Compliance (PC): PC performs automated security configuration assessments on IT systems throughout a network, helping to reduce risk and continuously ensure compliance with internal policies and external regulations. PC leverages out-of-the-box library content to fast-track compliance assessments using industry-recommended best practices. PC also provides a centralized, interactive console for specifying baseline standards for different hosts. By automating requirement evaluation against multiple standards for operating systems, network devices, databases and server applications, PC enables the quick identification of security issues and works to prevent configuration drift. PC works to prioritize and track remediation and exceptions, while demonstrating a repeatable auditable process for compliance management.

Security Configuration Assessment (SCA): SCA provides automatic assessment of IT assets' configurations using the latest Center for Internet Security (CIS) Benchmarks for operating systems, databases, applications and network devices. SCA provides intuitive workflows for assessing, monitoring, reporting and remediating security-related configuration issues. SCA's CIS assessments are provided via a web-based user interface and delivered from the Qualys Cloud Platform, enabling centralized management with minimal deployment overhead. SCA users can automatically create downloadable reports and view dashboards.

PCI Compliance (PCI): PCI streamlines and automates compliance with PCI DSS (Payment Card Industry Data Security Standard) requirements for protecting the collection, storage, processing and transmission of cardholder data. As an Approved Scanning Vendor, Qualys has been authorized by the PCI Security Standards Council to conduct the required quarterly scans. PCI scans all Internet-facing networks and systems with Six Sigma (99.9996%) accuracy, generates reports and provides detailed patching instructions. An auto-submission feature completes the compliance process once remediation is completed.

File Integrity Monitoring (FIM): FIM logs and centrally tracks file change events on common enterprise operating systems in organizations of all sizes. FIM provides customers with a simple way to achieve centralized cloud-based visibility of activity resulting from normal patching and administrative tasks, change control exceptions or violations, or malicious activity - then reports on that system activity as part of compliance mandates. FIM collects the critical details needed to quickly identify changes and root out activity that violates policy or is potentially malicious. FIM helps customers to comply with change control policy enforcement and change monitoring requirements.

Security Assessment Questionnaire (SAQ): SAQ automates and streamlines third-party and internal risk assessment processes, obviating the need to perform such processes manually via email and spreadsheets. SAQ easily designs surveys to assess procedural controls of IT and security policies and practices. SAQ automates the launch and monitoring of assessment campaigns, making the process agile, accurate, comprehensive, centralized, scalable and uniform across an organization. SAQ also provides tools for displaying, analyzing and acting on collected data, enabling the assessment of compliance with industry standards, regulations and internal policies of third parties, like vendors and partners, and of employees.

Out-of-Band Configuration Assessment (OCA): The OCA sensor and Cloud App allows customers to achieve complete visibility of all known IT infrastructure by pushing vulnerability and configuration data to the Qualys Cloud Platform from systems that are otherwise difficult to assess, such as highly locked-down systems, systems on disconnected or “air gap” networks, or in environments that are highly sensitive to scans. OCA’s expanded data collection approach significantly broadens the types of technologies supported by the Qualys Cloud Platform and provides deeper assessment of configuration so that customers have better visibility into potentially critical vulnerabilities and misconfigurations across their entire environment.

Web Application Security

Web Application Scanning (WAS): WAS continuously discovers and catalogs web applications – including new and unknown ones – and detects vulnerabilities and misconfigurations in web apps and APIs. Scaling to thousands of scans, it conducts incisive, thorough and precise testing of browser-based web apps, mobile app backends, and Internet of things (IoT) services. Its seamless integration with the Qualys Web Application Firewall (WAF) enables verification of attack protection, ticket creation and one click mitigation of vulnerabilities. WAS’ powerful API enables integration with other systems and allows teams to detect issues within DevOps environments early in the application development process. Bundled malware detection capability with WAS uses reputational, behavioral, antivirus, and heuristic analyses to identify and alert on malware infecting a user’s websites. By Integrating WAS with manual testing tools and bug bounty solutions, customers can build a comprehensive web application vulnerability testing program.

Web Application Firewall (WAF): WAF permits the reduction of application security cost and complexity with a unified platform to prevent any attempt to exploit vulnerabilities. Simple, scalable and adaptive, WAF enables the quick blocking of attacks, prevents disclosure of sensitive information, and controls when and where customer applications are accessed. WAF and WAS work together seamlessly. Customers scan web apps with WAS, deploy one-click virtual patches if needed in WAF, and manage it all from a centralized cloud-based portal. WAF can be deployed in minutes on prem or in the cloud, as a virtual machine or a container, supports load-balancing as well as TLS offloading, and does not require special hardware.

Asset Management

Global AssetView (GAV): GAV constantly gathers information on all assets, including system and hardware details, running services, open ports, installed software and user accounts. Asset discovery and inventory collection is done through a combination of Qualys network scanners, Cloud Agents and passive scanners, which together collect comprehensive data from on-premises or cloud infrastructure as well as remote endpoints. In order to create consistent and uniform asset data, GAV normalizes raw discovery data to standardize every manufacturer name, product name, model and software version using Qualys’ ever-evolving technology catalog as a reference. This catalog automatically extends IT asset inventory with non-discoverable metadata such as hardware and software release dates, end of life dates, and license categories. This new data layer allows teams to detect issues such as unauthorized software, outdated hardware or end-of-life software, which can help properly tag, support, and secure business-critical assets.

Cybersecurity Asset Management (CSAM): CSAM is an all-in-one solution that leverages the power of the Qualys Cloud Platform with its multiple native sensors and CMDB synchronization to continuously inventory known and unknown assets, discover installed applications, and overlay business and risk context to establish asset criticality. It identifies unauthorized or end-of-life and end-of-service software and the absence of required security tools, and assesses the health of the attack surface. Further, CSAM enables response options with threat alerts and software removal and delivers regulatory reporting in support of FedRAMP, PCI-DSS and other mandates. CSAM includes External Attack Surface Management, which allows discovery of internet facing unknown assets.

Certificate Inventory (CRI): CRI continuously scans global IT assets from a single console to discover internal and external certificates issued from any certificate authority across all enterprise IT assets, both on premise and in the cloud. As a result, certificates can be renewed before they expire, which stops certificate-related outages and improves availability. It collects all certificate, vulnerability and configuration data required for certificate inventory and analysis. CRI also reveals how many certificates are out of compliance or do not follow organizational policies for key length, for signature algorithms or for the use of trusted and approved Certificate Authorities through the use of highly customizable dashboards and provides users a comprehensive overview of Qualys SSL Labs-caliber certificate grades for internal and externally facing certificates.

Cloud / Container Security

Cloud Inventory (CI): CI delivers continuous visibility into public cloud accounts. In one single-pane view, it inventories virtual machines, storage buckets, databases, security groups, Access Control Lists (ACLs), Elastic Load Balancers (ELBs) and users – across all regions, multiple accounts and multiple cloud platforms. CI continuously tracks assets and enables users to quickly understand the topography of their cloud environment and uncover the root cause of incidents.

Cloud Security Assessment (CSA): CSA provides a continuous assessment of the security posture of an organization's cloud resources against misconfigurations, malicious behavior, and nonstandard deployments. CSA evaluates resources against CIS benchmarks and best practices to identify misconfigured storage buckets, security groups, Relational Database Service, exposing data and the resource for public exploitation. CSA correlates host vulnerabilities and compliance data into intelligent insights which allow users to quickly detect risks throughout their complex cloud environments. With CSA, users gain real-time visibility into their up-to-date security and compliance posture of public clouds in one single-pane view.

Container Security (CS): CS delivers container-native visibility and protection throughout the entire lifecycle of containerized applications. It incorporates scanning of container images for software composition and enforcement of hardened container stack configurations for continuous policy compliance, whether the images are on the build machines, in the container registries or in the runtime cluster nodes. CS uses a unique 'layered-in' approach to provide deep visibility into all the application activities and automatically creates a behavior profile, which is enforced on each container for runtime protection. By integrating with continuous integration and continuous delivery pipelines and toolchains, CS enables DevSecOps processes and transparent enforcement of security and compliance without compromising the speed and agility of containers and serverless deployment models. This leads to significant cost benefits for enterprises compared to certain legacy security solutions.

Free Services

We also offer organizations of all sizes free security and compliance services based on the Qualys Cloud Platform:

- Qualys Global AssetView app automatically creates a continuous, real-time inventory of known and unknown assets throughout a user's global IT footprint across on-premises, endpoints, multi-cloud, mobile, containers, operational technology and IoT. The app also automatically normalizes and categorizes assets to ensure clean, reliable, and consistent data. In-depth asset details provide fine-grained visibility on the system, services, installed software, network, and users. It also detects any device that connects to a user's networks, via passive scanning technology. Upon an unknown device detection, users can install a light-weight Qualys self-updating agent (3MB) to turn the device into a managed device or launch a vulnerability scan.
- Qualys Cloud Inventory continuously discovers and tracks assets and resources across public cloud deployments to provide users both real-time and historical views of cloud inventory. It collects metadata about cloud assets and resources to help users understand the relationships between public cloud assets and resources across different dimensions and then discover their threat posture based on those attributes and relationships. Cloud Inventory is limited to three accounts per public cloud platform.
- Qualys Certificate Inventory inventories and assesses all Internet-facing certificates to generate SSL/TLS configuration grades, identifies the certificate issuer and tracks certificate expirations to help stop expired and expiring certificates from interrupting critical business functions.

Our Growth Strategy

We intend to strengthen our leadership position as a trusted provider of cloud-based IT, security and compliance solutions. The key elements of our growth strategy are:

- **Continue to innovate and enhance our cloud platform and suite of solutions.** We intend to continue to make significant investments in research and development to extend our cloud platform's functionality by developing new security solutions and capabilities and further enhancing our existing suite of solutions. From inception through December 31, 2021, we have added the following Cloud Apps: PC, PCI, WAS, WAF, CM, SAQ, TP, FIM, GAV, SCA, CS, CI, CSA, CRI, CRA, OCA, PM, VMDR, EDR, SaaS DR, SEM, and CSAM. In 2022, we introduced CAR, XDR and NDR.
- **Expand the use of our suite of solutions by our large and diverse customer base.** With more than 10,000 customers, across many industries and geographies, we believe we have a significant opportunity to sell additional solutions to our customers and expand their use of our suite of solutions. Because our customers typically initially deploy one or two of our solutions in select parts of their IT infrastructures, our existing customers serve as a strong source of new sales as they expand their scope and increase their subscriptions or choose to adopt additional solutions from our integrated suite of IT, security and compliance offerings. In this regard, we continue to expand our sales execution and marketing functions to increase adoption of our newly developed solutions among our existing customers.
- **Drive new customer growth and broaden our global reach.** We are pursuing new customers by targeting key accounts, releasing free IT, security and compliance services and expanding both our sales and marketing organization and network of channel partners. We will continue to seek to make significant investments to encourage organizations to replace their existing security products with our cloud solutions. We intend to expand our relationships with key security consulting organizations, managed security service providers and value-added resellers to accelerate the adoption of our cloud platform. We seek to strengthen existing relationships as well as establish new relationships to increase the distribution and market awareness of our cloud platform and target new geographic regions. We also plan to partner with such security providers that can host our private cloud offering within their shared cloud platforms, helping us expand our reach in new markets and new geographies.
- **Selectively pursue technology acquisitions to bolster our capabilities and leadership position.** We may explore acquisitions that are complementary to and can expand the functionality of our cloud platform. We may also seek to acquire development teams to supplement our own personnel and acquire technology to increase the breadth of our cloud-based IT, security and compliance solutions. In 2022, we acquired certain intangible assets of Blue Hexagon Inc., enabling us to leverage our cloud platform with AI/machine learning to uncover behavior patterns including active vulnerability exploitation, identification of advanced network threats, and adaptive risk mitigation across all assets and applications. In 2021, we acquired certain intangible assets of Kandor Soft Labs Private Ltd. (TotalCloud), strengthening our cloud security solution by allowing customers to build user-defined workflows for custom policies and execute them on-demand for simplified security and compliance. In 2020, we acquired certain intangible assets of Spell Security Private Limited (Spell Security), expanding our endpoint behavior detection, threat hunting, malware research and multi-layered response capabilities for our EDR application.

Our Customers

We market and sell our solutions to enterprises, government entities and small and medium-sized businesses across a broad range of industries, including education, financial services, government, healthcare, insurance, manufacturing, media, retail, technology and utilities. As of December 31, 2022, we had over 10,000 customers worldwide, including a majority of each of the Forbes Global 100 and Fortune 100. In each of 2022, 2021 and 2020, no one customer accounted for more than 10% of our revenues. In 2022, 2021 and 2020, 60%, 61% and 63%, respectively, of our revenues were derived from customers in the United States based on our customers' billing addresses. We sell our solutions to enterprises and government entities primarily through our field sales force and to small and medium-sized businesses through our inside sales force. We generate a significant portion of sales through our channel partners, including managed security service providers, value-added resellers and consulting firms in the United States and internationally.

Sales and Marketing

Sales

We market and sell our IT, security and compliance solutions to customers directly through our sales teams as well as indirectly through our network of channel partners.

Our global sales force is organized into a field sales team, which focuses on enterprises, generally including organizations with more than 5,000 employees, and an inside sales team, which focuses on small to medium-sized businesses, which generally include organizations with less than 5,000 employees. Both our field and inside sales teams are divided into three geographic regions, the Americas; Europe, Middle East and Africa; and Asia-Pacific. We also further assign each of our sales teams into groups that focus on adding new customers or managing relationships with existing customers.

Our channel partners maintain relationships with their customers throughout the territories in which they operate and provide their customers with services and third-party solutions to help meet those customers' evolving security and compliance requirements. As such, these partners offer our IT, security and compliance solutions in conjunction with one or more of their own products or services and act as a conduit through which we can connect with these prospective customers to offer our solutions. Our channel partners include security consulting organizations, managed service providers and resellers, such as Accenture, BT Managed Security, Cognizant Technology Solutions, Deutsche Telekom, DXC Technology, Fujitsu, Hindustan Computers Limited (HCL) Technologies, International Business Machines (IBM), Infosys, Nippon Telegraph and Telephone Corporation (NTT), Optiv, Tata Communications, Verizon, Wipro and TD SYNEX Corporation (TD SYNEX). Qualys has also established strategic partnerships with leading cloud providers like Amazon Web Services, Microsoft Azure and the Google Cloud Platform.

For sales involving a channel partner, the channel partner engages with the prospective customer directly and involves our sales team as needed to assist in developing and closing an order. When a channel partner secures a sale, we sell the associated subscription to the channel partner who in turn resells the subscription to the customer, with the channel partner earning a fee based on the total value of the order. Once the order is completed, we provide these customers with direct access to our solutions and other associated back-office applications, enabling us to establish a direct relationship as part of ensuring customer satisfaction with our solutions. At the end of the subscription term, the channel partner engages with the customer to execute a renewal order, with our sales team providing assistance as required. In 2022, 2021 and 2020, 42%, 41% and 42%, respectively, of our revenues were generated by channel partners.

Marketing

Our marketing programs include a variety of online marketing, advertising, conferences, events, public relations activities and web-based seminar campaigns targeted at key decision makers within our prospective customers.

We have a number of marketing initiatives to build awareness and encourage customer adoption of our solutions. We offer free trials and services to allow prospective customers to experience the quality of our solutions, to learn in detail about the features and functionality of our cloud platform, and to quantify the potential benefits of our solutions.

Customer Support

Qualys Support delivers 24x7x365 day customer technical support from global centers located in Foster City, California; Raleigh, North Carolina; and Pune, India. We recruit senior level technical personnel and trained subject matter experts who work closely with engineering and operations personnel to resolve issues quickly. Our IT, security and compliance solutions can be deployed easily and are designed to be implemented and operated without the need for significant professional services. We also offer various training programs as part of our subscriptions to all of our customers. In addition, we leverage the insights drawn from our customers to further improve the functionality of our IT, security and compliance solutions. Our mission is to ensure customer satisfaction and play a critical role in retaining and expanding our customer base.

Research and Development and Operations

We devote significant resources to maintain, enhance and add new functionality to our Qualys Cloud Platform and the integrated suite of solutions that we offer. Our development organization consists of agile engineering teams with substantial security expertise in specific areas of our solutions. In addition to our development teams, we also built a sophisticated research team focused on identifying threats and developing signatures for vulnerabilities and compliance checks so that we can provide our customers with daily updates and enable them to scan their assets for the latest threats. We conduct our research and development in the United States, France and India, which gives us access to some of the best research and engineering talent in the world. Our focus remains to attract engineering talent as we continue to add new solutions and improve existing ones.

Our development team works closely with our customers and partners to gain valuable insights into their environments and gather feedback for threat research, product development and innovations. We typically release updates to our solutions, including enhancements and new features multiple times a year, and we measure the quality of our scan results on a frequent basis in an effort to maintain the highest level of scan accuracy.

The modular architecture of our cloud platform enables our engineering teams to simultaneously work on different features, accelerating the delivery of new functionalities to customers. Our research and development team also works collaboratively with our technical support team to ensure customer satisfaction and with our sales team to accelerate the adoption of our solutions.

Shared Cloud Platform Agreements

Our shared cloud platform operations are provided by large third-party vendors and are located in the United States, Canada, Switzerland, the Netherlands, United Arab Emirates, Australia, United Kingdom and India. Our shared cloud platform agreements have varying terms through 2025.

Competition

The expanding capabilities of our IT, security and compliance solutions have enabled us to address a growing array of opportunities in the cloud IT, security and compliance market. We compete with a large and broad array of established and emerging vulnerability management vendors, compliance vendors and data security vendors in a highly fragmented and competitive environment.

We compete with large and small public companies, such as Broadcom (Symantec Enterprise Security), CrowdStrike, Palo Alto Networks, Rapid7, and Tenable Holdings, as well as privately held security providers including Axonius, Checkmarx, Flexera, Invicti, Ivanti, Tanium, HelpSystems (Tripwire), Trustwave Holdings and Veracode. We also seek to replace IT, security and compliance solutions that organizations have developed internally. As we continue to extend our cloud platform's functionality by further developing IT, security and compliance solutions, such as web application scanning and firewalls, we expect to face additional competition in these new markets. Our competitors may also attempt to further expand their presence in the IT, security and compliance market and compete more directly against one or more of our solutions.

We believe that the principal competitive factors affecting our markets include product functionality, breadth of offerings, flexibility of delivery models, ease of deployment and use, total cost of ownership, scalability and performance, customer support and extensibility of platform. We believe that our suite of solutions generally competes favorably with respect to these factors. However, many of our primary competitors have greater name recognition, longer operating histories, more established customer relationships, larger marketing budgets and significantly greater resources than we do.

Intellectual Property

We rely on a combination of trade secrets, copyrights, patents and trademarks, as well as contractual protections, to establish and protect our intellectual property rights and protect our proprietary technology. As of December 31, 2022, we have thirty issued patents, which expire from 2029 to 2040, several pending U.S. patent applications and an exclusive license to four U.S. patents. The inbound license remains in effect until the licensed patents are no longer enforceable, unless the applicable license agreement is first terminated by us or terminated by the licensor for a breach of the agreement or if we undergo certain bankruptcy events. The licenses are currently exclusive and will remain exclusive so long as we make an appropriately-timed written election and pay an annual fixed royalty for ten years thereafter. These exclusive licenses are subject to the licensor's reservation of certain rights in the patents and subject to the U.S. government's reserved rights in the technology. We have a number of registered and unregistered trademarks. We require our employees, consultants and other third parties to enter into confidentiality and proprietary rights agreements and control access to software, documentation and other proprietary information. We view our trade secrets and know-how as a significant component of our intellectual property assets, as we have spent years designing and developing the Qualys Cloud Platform, which we believe differentiates us from our competitors.

We expect that software and other solutions in our industry may be subject to third-party infringement claims as the number of competitors grows and the functionality of products in different industry segments overlaps. Any of these third parties might make a claim of infringement against us at any time.

Human Capital Resources

We take a holistic approach to our human capital management strategy, striving to create a culture where talented people want to come to work, develop their careers, become leaders, and make a difference for all our stakeholders and communities. Doing the right thing for our people, our communities and our environment upholds the trust of our customers, partners, employees, and stockholders, enabling us to grow our business profitably and meet the diverse needs of our constituents.

As of December 31, 2022, we had 2,143 full-time employees, including 1,062 in research and development, 376 in sales and marketing, 478 in operations and customer support, and 227 in general and administrative. As of December 31, 2022, approximately 75% of our employees were located outside of the United States, with 66% of our employees located in Pune, India. None of our U.S. employees are covered by collective bargaining agreements. Employees in certain European countries and Brazil have collective bargaining arrangements at the national level. We believe our employee relations are good, and we have not experienced any work stoppages.

Diversity and Inclusion

We are proud to be a leader in the promotion and practice of diversity and inclusion. In addition to having offices and employees all over the world, we take pride in our cultural diversity. Qualys searches the globe for top talent in an effort to recruit and hire diverse individuals with a variety of skills, experiences, and backgrounds. Our objective is to continue to improve our hiring, development, advancement, and retention of diverse talent and to foster an inclusive environment.

Our board of directors and executive team are highly diverse. Two out of our current seven member board of directors are women, one is a man from an underrepresented community, and the board of directors seeks to identify strong candidates who provide a wide range of perspectives, competencies, and knowledge to complement the skills, diversity and experiences of the board of directors. Further, our executive team is gender and ethnically diverse, with more than 50% of the executive team from underrepresented communities.

Health and Safety

We recognize that a healthy environment and safe workplaces are critical to our business, strategy, and communities. We address environmental issues in an integrated manner to encompass protection of the environment as well as the health and safety of our workforce. For example, in response to COVID-19 and the significant increases in remote workforces in March 2020, we mandated a work from home policy to protect our employees and our communities. We also released a free cloud-based remote endpoint protection solution for 60 days that allowed IT and security teams to protect the computers of remote employees and support the health and safety of our communities.

During 2022, our workforce gradually transitioned into a hybrid work schedule, which resulted in a significant portion of our workforce working either in-person on a part-time basis, or remotely on a permanent basis. Our top priority remains providing support for our employees, partners, and customers. We are fortunate that the nature of our business allows us to successfully operate in this dynamic hybrid environment. We believe that our hybrid policy will be a key enabler to support the broad needs of critical on-site to remote employees.

We require our employees and managers to participate in myriad training programs directed at maintaining a harassment-free, diverse, and secure workplace. With our diverse employee population, we uphold the rights to work in an environment that promotes equal opportunity and prohibits discriminatory practices against race, color, national origin, ancestry, medical condition, religious creed (including religious dress and grooming practices), marital status, registered domestic partner status, sex, sexual orientation, gender identity and expression, genetic characteristics and information, age, veteran status, or any other protected characteristic. Creating a respectful workplace and preventing harassment to our employees remain our on-going commitment.

Compensation and Benefits

We provide robust compensation and benefits to our employees. In addition to competitive base salaries, all qualified employees are eligible for variable pay and equity awards.

To support the health and wellness of our workforce, we offer premium health coverage with minimal out-of-pocket contributions for our global employees.

Training and Development

We have experience with managing and developing a rapidly growing employee base. We believe every employee makes a difference, so we empower them in their roles and support them for maximum professional growth. We assist employees in achieving their career goals by helping them improve their skillsets and transition to other challenging roles. To support career growth inside and outside Qualys, we offer free self-paced or instructor-led certified training on core Qualys topics giving employees and non-employees an opportunity to achieve certifications.

Available Information

Our principal executive offices are located at 919 E. Hillsdale Blvd., 4th Floor, Foster City, California 94404. The telephone number of our principal executive offices is (650) 801-6100, and our main corporate website is www.qualys.com. Information contained on, or that can be accessed through, our website, does not constitute part of this Annual Report on Form 10-K and inclusion of our website address in this Annual Report on Form 10-K is an inactive textual reference only.

We make available our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended, free of charge on our website, www.qualys.com as soon as reasonably practicable after they are electronically filed with or furnished to the SEC. Additionally, copies of materials filed by us with the SEC may be accessed at the SEC's website, www.sec.gov.

Item 1A. Risk Factors

An investment in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, and all other information contained in this Annual Report on Form 10-K, including our consolidated financial statements and the related notes, before making a decision to invest in our common stock. Our business, operating results, financial condition, or prospects could be materially and adversely affected by any of these risks and uncertainties. In that case, the trading price of our common stock could decline, and you might lose all or part of your investment. In addition, the risks and uncertainties discussed below are not the only ones we face. Our business, operating results, financial performance or prospects could also be harmed by risks and uncertainties not currently known to us or that we currently do not believe are material.

Risks Related to Our Business and Industry

Our quarterly and annual operating results may vary from period to period, which could result in our failure to meet expectations with respect to operating results and cause the trading price of our stock to decline.

Our operating results have historically varied from period to period, and we expect that they will continue to do so as a result of a number of factors, many of which are outside of our control, including:

- the level of demand for our solutions, from both existing and new customers;
- the extent to which customers subscribe for additional solutions;
- changes in customer renewals of our solutions;
- timing of deals signed within the applicable fiscal period;
- seasonal buying patterns of our customers;
- timely invoicing or changes in billing terms of customers;
- the length of our sales cycle for our products and services;
- price competition;
- the timing and success of new product or service introductions by us or our competitors or any other changes in the competitive landscape of our industry, including consolidation among our competitors;
- the introduction or adoption of new technologies that compete with our solutions;
- decisions by potential customers to purchase IT, security and compliance products or services from other vendors;
- general economic conditions, both domestically and in the foreign markets in which we sell our solutions;
- changes in foreign currency exchange rates;
- changes in the growth rate of the IT, security and compliance market;
- actual or perceived security breaches, technical difficulties or interruptions with our service;
- failure of our products and services to operate as designed;
- publicity regarding security breaches generally and the level of perceived threats to IT security;
- the announcement or adoption of new regulations and policy mandates or changes to existing regulations and policy mandates;
- the amount and timing of operating costs and capital expenditures related to the operations and expansion of our business;
- pace and cost of hiring employees;
- expenses associated with our existing and new products and services;
- the timing of sales commissions relative to the recognition of revenues;
- insolvency or credit difficulties confronting our customers, affecting their ability to purchase or pay for our solutions;
- our ability to integrate any products or services that we have acquired or may acquire in the future into our product suite or migrate existing customers of any companies that we have acquired or may acquire in the future to our products and services;
- future accounting pronouncements or changes in our accounting policies;
- our effective tax rate, changes in tax rules, tax effects of infrequent or unusual transactions, and tax audit settlements;
- the amount and timing of income tax that we recognize resulting from stock-based compensation;
- the timing of expenses related to the development or acquisition of technologies, services or businesses; and
- potential goodwill and intangible asset impairment charges associated with acquired businesses.

Further, the interpretation and application of international laws and regulations in many cases is uncertain, and our legal and regulatory obligations in foreign jurisdictions are subject to frequent and unexpected changes, including the potential for various regulatory or other governmental bodies to enact new or additional laws or regulations or to issue rulings that invalidate prior laws or regulations.

Each factor above or discussed elsewhere in this Annual Report on Form 10-K or the cumulative effect of some of these factors may result in fluctuations in our operating results. This variability and unpredictability could result in our failure to meet expectations with respect to operating results, or those of securities analysts or investors, for a particular period. In addition, a significant percentage of our operating expenses are fixed in nature and based on forecasted trends in revenues. Accordingly, in the event of shortfalls in revenues, we are generally unable to mitigate the negative impact on margins in the short term by reducing our operating expenses. If we fail to meet or exceed expectations for our operating results for these or any other reasons, the trading price of our common stock could fall and we could face costly lawsuits, including securities class action suits.

If we do not successfully anticipate market needs and opportunities or are unable to enhance our solutions and develop new solutions that meet those needs and opportunities on a timely or cost-effective basis, we may not be able to compete effectively and our business and financial condition may be harmed.

The IT, security and compliance market is characterized by rapid technological advances, customer price sensitivity, short product and service life cycles, intense competition, changes in customer requirements, frequent new product introductions and enhancements and evolving industry standards and regulatory mandates. Any of these factors could create downward pressure on pricing and gross margins, and could adversely affect our renewal rates, as well as our ability to attract new customers. Our future success will depend on our ability to enhance existing solutions, introduce new solutions on a timely and cost-effective basis, meet changing customer needs, extend our core technology into new applications, and anticipate and respond to emerging standards and business models. We must also continually change and improve our solutions in response to changes in operating systems, application software, computer and communications hardware, networking software, shared cloud platform infrastructures, programming tools and computer language technology.

We may not be able to anticipate future market needs and opportunities or develop enhancements or new solutions to meet such needs or opportunities in a timely manner or at all. The market for cloud solutions for IT, security and compliance continues to evolve, and it is uncertain whether our new solutions will gain market acceptance.

Our solution enhancements or new solutions could fail to attain sufficient market acceptance for many reasons, including:

- failure to timely meet market demand for product functionality;
- inability to identify and provide intelligence regarding the attacks or techniques used by cyber-attackers;
- inability to inter-operate effectively with the database technologies, file systems or web applications of our prospective customers;
- defects, errors or failures;
- delays in releasing our enhancements or new solutions;
- negative publicity about their performance or effectiveness;
- introduction or anticipated introduction of products by our competitors;
- poor business conditions, causing customers to delay IT, security and compliance purchases;
- easing or changing of external regulations related to IT, security and compliance; and
- reluctance of customers to purchase cloud solutions for IT, security and compliance.

Furthermore, diversifying our solutions and expanding into new IT, security and compliance markets will require significant investment and planning, require that our research and development and sales and marketing organizations develop expertise in these new markets, bring us more directly into competition with IT, security compliance providers that may be better established or have greater resources than we do, require additional investment of time and resources in the development and training of our channel partners and entail significant risk of failure.

If we fail to anticipate market requirements or fail to develop and introduce solution enhancements or new solutions to satisfy those requirements in a timely manner, such failure could substantially decrease or delay market acceptance and sales of our present and future solutions and cause us to lose existing customers or fail to gain new customers, which would significantly harm our business, financial condition and results of operations.

If we fail to continue to effectively scale and adapt our platform to meet the performance and other requirements of our customers, our operating results and our business would be harmed.

Our future growth depends to a significant extent on our ability to continue to meet the expanding needs of our customers as their use of our cloud platform grows. As these customers gain more experience with our solutions, the number of users and the number of locations where our solutions are being accessed may expand rapidly in the future. In order to ensure that we meet the performance and other requirements of our customers, we intend to continue to make significant investments to develop and implement new proprietary and third-party technologies at all levels of our cloud platform. These technologies, which include databases, applications and server optimizations, and network and hosting strategies, are often complex, new and unproven. We may not be successful in developing or implementing these technologies. To the extent that we do not effectively scale our platform to maintain performance as our customers expand their use of our platform, our operating results and our business may be harmed.

If we are unable to renew existing subscriptions for our IT, security and compliance solutions, sell additional subscriptions for our solutions and attract new customers, our operating results would be harmed.

We offer our Qualys Cloud Platform and integrated suite of solutions pursuant to a software-as-a-service model, and our customers purchase subscriptions from us that are generally one year in length. Our customers have no obligation to renew their subscriptions after their subscription period expires, and they may not renew their subscriptions at the same or higher levels or at all. As a result, our ability to grow depends in part on customers renewing their existing subscriptions and purchasing additional subscriptions and solutions. Our customers may choose not to renew their subscriptions to our solutions or purchase additional solutions due to a number of factors, including their satisfaction or dissatisfaction with our solutions, the prices of our solutions, the prices of products or services offered by our competitors, reductions in our customers' spending levels due to the macroeconomic environment or other factors. If our customers do not renew their subscriptions to our solutions, renew on less favorable terms, or do not purchase additional solutions or subscriptions, our revenues may grow more slowly than expected or decline and our operating results would be harmed.

In addition, our future growth depends in part upon increasing our customer base. Our ability to achieve significant growth in revenues in the future will depend, in large part, upon continually attracting new customers and obtaining subscription renewals to our solutions from those customers. If we fail to attract new customers, our revenues may grow more slowly than expected and our operating results would be harmed.

Our current research and development efforts may not produce successful products or enhancements to our platform that result in significant revenue, cost savings or other benefits in the near future.

We must continue to dedicate significant financial and other resources to our research and development efforts if we are to maintain our competitive position. However, developing products and enhancements to our platform is expensive and time consuming, and there is no assurance that such activities will result in significant new marketable products or enhancements to our platform, design improvements, cost savings, revenue or other expected benefits. If we spend significant resources on research and development and are unable to generate an adequate return on our investment, our business and results of operations may be materially and adversely affected.

Our platform, website and internal systems may be subject to intentional disruption or other security incidents that could result in liability and adversely impact our reputation and future sales.

We and our service providers face threats from a variety of sources, including attacks on our networks and systems from numerous sources, including traditional “hackers,” sophisticated nation-state and nation-state supported actors, other sources of malicious code (such as viruses and worms), ransomware, social engineering, denial of service attacks, and phishing attempts. We and our service providers could be a target of cyber-attacks or other malfeasance designed to impede the performance of our solutions, penetrate our network security or the security of our cloud platform or our internal systems, misappropriate proprietary information and/or cause interruptions to our services. We and our service providers have experienced and may continue to experience security incidents and attacks of varying degrees from time to time. For example, in December 2020, we were notified by a service provider, Accellion, of a zero-day vulnerability affecting an Accellion FTA server that we deployed to transfer information as part of our customer support system. In response to this incident, we engaged third-party forensic experts to investigate and determined that attackers illegally obtained certain information from the Accellion FTA server. We notified affected customers, as we deemed was required or appropriate. We have incurred costs to respond to this incident and may continue to incur costs to support our efforts to enhance our security measures. Additionally, due to political uncertainty and military actions associated with Russia’s invasion of Ukraine, we and our service providers are vulnerable to heightened risks of cybersecurity incidents and security and privacy breaches from or affiliated with nation-state actors, including attacks that could materially disrupt our systems, operations and services.

Our solutions, platforms, and system, and those of our service providers, may also suffer security incidents as a result of non-technical issues, including intentional or inadvertent acts or omissions by our employees or service providers. With the increase in personnel working remotely during the current COVID-19 pandemic, we and our service providers are at increased risk for security breaches. We have taken and intend to continue to take steps to monitor and enhance the security of our solutions, cloud platform, and other relevant systems, IT infrastructure, networks, and data; however, the unprecedented scale of remote work may require additional personnel and resources, which nevertheless cannot be guaranteed to fully safeguard our solutions, our cloud platform, or any systems, IT infrastructure networks, or data upon which we rely. Further, because our operations involve providing IT security solutions to our customers, we may be targeted for cyber-attacks and other security incidents. A breach in our data security or an attack against our service availability, or that of our third-party service providers, could impact our networks or networks secured by our solutions, creating system disruptions or slowdowns and exploiting security vulnerabilities of our solutions, and the information stored on our networks or those of our third-party service providers could be accessed, used, publicly disclosed, altered, lost, or stolen, which could subject us to liability and cause us financial harm. If an actual or perceived disruption in the availability of our solutions or the breach of our security measures or those of our service providers occurs, it could adversely affect the market perception of our solutions, result in a loss of competitive advantage, have a negative impact on our reputation, or result in the loss of customers, channel partners and sales, and it may expose us to the loss or alteration of information, litigation, regulatory actions and investigations and possible liability. Any such actual or perceived security breach or disruption could also divert the efforts of our technical and management personnel. We also may incur significant costs and operational consequences of investigating, remediating, eliminating and putting in place additional tools and devices designed to prevent actual or perceived security incidents, as well as the costs to comply with any notification obligations resulting from any security incidents. In addition, any such actual or perceived security breach could impair our ability to operate our business and provide solutions to our customers. If this happens, our reputation could be harmed, our revenues could decline and our business could suffer.

Although we maintain insurance coverage that may be applicable to certain liabilities in the event of a security breach or other security incident, we cannot be certain that our insurance coverage will be adequate for liabilities that actually are incurred, that insurance will continue to be available to us on economically reasonable terms, or at all, or that any 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 have a material and adverse effect on our business, including our financial condition, operating results and reputation.

Our sales cycle can be long and unpredictable, and our sales efforts require considerable time and expense. As a result, revenues may vary from period to period, which may cause our operating results to fluctuate and could harm our business.

The timing of sales of subscriptions for our solutions can be difficult to forecast because of the length and unpredictability of our sales cycle, particularly with large transactions. We sell subscriptions to our IT, security and compliance solutions primarily to IT departments that are managing a growing set of user and compliance demands, which has increased the complexity of customer requirements to be met and confirmed during the sales cycle and prolonged our sales cycle. Further, the length of time that potential customers devote to their testing and evaluation, contract negotiation and budgeting processes varies significantly, which has also made our sales cycle long and unpredictable. The length of the sales cycle for our solutions typically ranges from six to twelve months but can be more than eighteen months. In addition, we might devote substantial time and effort to a particular unsuccessful sales effort, and as a result we could lose other sales opportunities or incur expenses that are not offset by an increase in revenues, which could harm our business.

Adverse economic conditions or reduced IT spending may adversely impact our business.

Our business depends to a significant extent on the overall demand for IT and on the economic health of our current and prospective customers. Economic weakness, customer financial difficulties, supply chain constraints, change in interest rates, inflationary pressures and potential for a recession, and constrained spending on IT security, which factors we have experienced in 2022, have resulted and may in the future result in decreased revenue and earnings. Such factors have made and could in the future make it difficult to accurately forecast our sales and operating results and could negatively affect our ability to provide accurate forecasts to our contract manufacturers. In addition, continued governmental budgetary challenges in the United States and Europe, inflationary pressures and potential for a recession, and geopolitical turmoil in many parts of the world, including the ongoing military conflict between Russia and Ukraine, and other disruptions to global and regional economies and markets in many parts of the world, as well as uncertainties related to changes in public policies such as domestic and international regulations, taxes or international trade agreements, have and may continue to put pressure on global economic conditions and overall spending on IT security and may further increase inflation, both in the U.S. and globally, which could increase our operating costs in the future and reduce overall spending on IT security. General economic weakness may also lead to longer collection cycles for payments due from our customers, an increase in customer bad debt, restructuring initiatives and associated expenses, and impairment of investments. Furthermore, the continued weakness and uncertainty in worldwide credit markets, including the sovereign debt situation in certain countries in the European Union, may adversely impact our European operations, as well as our current and potential customers' available budgetary spending, which could lead to delays or reductions in planned purchases of our solutions.

Uncertainty about future economic conditions also makes it difficult to forecast operating results and to make decisions about future investments. Future or continued economic weakness for us or our customers, failure of our customers and markets to recover from such weakness, customer financial difficulties, and reductions in spending on IT security could have a material adverse effect on demand for our platform and consequently on our business, financial condition and results of operations.

Our IT, security and compliance solutions are delivered from 11 shared cloud platforms, and any disruption of service at these facilities would interrupt or delay our ability to deliver our solutions to our customers which could reduce our revenues and harm our operating results.

We currently host substantially all of our solutions from third-party shared cloud platforms located in the United States, Canada, Switzerland, the Netherlands, United Arab Emirates, Australia, United Kingdom and India. These facilities are vulnerable to damage or interruption from earthquakes, hurricanes, floods, fires, cybersecurity attacks, terrorist attacks, employee negligence, power losses, telecommunications failures and similar events. The facilities also could be subject to break-ins, sabotage, intentional acts of vandalism and other misconduct. The occurrence of a natural disaster, an act of terrorism or misconduct, a decision to close the facilities without adequate notice or other unanticipated problems could result in interruptions in our services.

Some of our shared cloud platforms are not currently redundant and we may not be able to rapidly move our customers from one shared cloud platform to another, which may increase delays in the restoration of our service for our customers if an adverse event occurs. We have added shared cloud platforms to provide additional capacity and to enable disaster recovery. We continue to build out these facilities; however, these additional facilities may not be operational in the anticipated time-frame and we may incur unplanned expenses.

Additionally, our existing shared cloud platform providers have no obligations to renew their agreements with us on commercially reasonable terms, or at all. If we are unable to renew our agreements with the facilities providers on commercially reasonable terms or if in the future we add additional shared cloud platform providers, we may experience costs or downtime in connection with the loss of an existing facility or the transfer to, or addition of, new facilities.

Any disruptions or other performance problems with our solutions could harm our reputation and business and may damage our customers' businesses. Interruptions in our service delivery might reduce our revenues, cause us to issue credits to customers, subject us to potential liability and cause customers to terminate their subscriptions or not renew their subscriptions.

We face competition in our markets, and we may lack sufficient financial or other resources to maintain or improve our competitive position.

We compete with a large range of established and emerging vulnerability management vendors, compliance vendors and data security vendors in a highly fragmented and competitive environment. We face significant competition for each of our solutions from companies with broad product suites and greater name recognition and resources than we have, as well as from small companies focused on specialized security solutions.

We compete with large and small public companies, such as Broadcom (Symantec Enterprise Security), CrowdStrike, Palo Alto Networks, Rapid7, Tenable Holdings, as well as privately held security providers including Axonius, Checkmarx, Flexera, Invicti, Ivanti, Tanium, HelpSystems (Tripwire), Trustwave Holdings and Veracode. We also seek to replace IT, security and compliance solutions that organizations have developed internally. As we continue to extend our cloud platform's functionality by further developing IT, security and compliance solutions, such as web application scanning and firewalls, we expect to face additional competition in these new markets. Our competitors may also attempt to further expand their presence in the IT, security and compliance market and compete more directly against one or more of our solutions.

We believe that the principal competitive factors affecting our markets include product functionality, breadth of offerings, flexibility of delivery models, ease of deployment and use, total cost of ownership, scalability and performance, customer support and extensibility of platform. Many of our existing and potential competitors have competitive advantages, including:

- greater brand name recognition;
- larger sales and marketing budgets and resources;
- broader distribution networks and more established relationships with distributors and customers;
- access to larger customer bases;
- greater customer support resources;
- greater resources to make acquisitions;
- greater resources to develop and introduce products that compete with our solutions;
- greater resources to meet relevant regulatory requirements; and
- substantially greater financial, technical and other resources.

As a result, our competitors may be able to respond more quickly and effectively than we can to new or changing opportunities, technologies, standards or customer requirements. With the introduction of new technologies, the evolution of our service and new market entrants, we expect competition to intensify in the future.

In addition, some of our larger competitors have substantially broader product offerings and can bundle competing products and services with other software offerings. As a result, customers may choose a bundled product offering from our competitors, even if individual products have more limited functionality than our solutions. These competitors may also offer their products at a lower price as part of this larger sale, which could increase pricing pressure on our solutions and cause the average sales price for our solutions to decline. These larger competitors are also often in a better position to withstand any significant reduction in capital spending and will therefore not be as susceptible to economic downturns.

Furthermore, our current and potential competitors may establish cooperative relationships among themselves or with third parties that may further enhance their resources and product and services offerings in the markets we address. In addition, current or potential competitors may be acquired by third parties with greater available resources. As a result of such relationships and acquisitions, our current or potential competitors might be able to adapt more quickly to new technologies and customer needs, devote greater resources to the promotion or sale of their products and services, initiate or withstand substantial price competition, take advantage of other opportunities more readily or develop and expand their product and service offerings more quickly than we do. For all of these reasons, we may not be able to compete successfully against our current or future competitors.

The sales prices of our solutions are subject to competitive pressures and may decrease, which may reduce our gross profits and adversely impact our financial results.

The sales prices for our solutions may decline for a variety of reasons, including competitive pricing pressures, discounts, a change in our mix of solutions and subscriptions, anticipation of the introduction of new solutions or subscriptions, or promotional programs. Competition continues to increase in the market segments in which we participate, and we expect competition to further increase in the future, thereby leading to increased pricing pressures. Larger competitors with more diverse product and service offerings may reduce the price of products or subscriptions that compete with ours or may bundle them with other products and subscriptions. Additionally, although we price our products and subscriptions worldwide in U.S. Dollars, Euros, British Pounds, Canadian Dollars, Japanese Yen and Indian Rupee, currency fluctuations in certain countries and regions may negatively impact actual prices that partners and customers are willing to pay in those countries and regions, or the effective prices we realize in our reporting currency. We cannot assure you that we will be successful in developing and introducing new offerings with enhanced functionality on a timely basis, or that our new product and subscription offerings, if introduced, will enable us to maintain our prices and gross profits at levels that will allow us to maintain positive gross margins and profitability.

If our solutions fail to help our customers achieve and maintain compliance with regulations and industry standards, our revenues and operating results could be harmed.

We generate a portion of our revenues from solutions that help organizations achieve and maintain compliance with regulations and industry standards. For example, many of our customers subscribe to our IT, security and compliance solutions to help them comply with the security standards developed and maintained by the Payment Card Industry Security Standards Council, or the PCI Council, which apply to companies that store cardholder data. Industry organizations like the PCI Council may significantly change their security standards with little or no notice, including changes that could make their standards more or less onerous for businesses. Governments may also adopt new laws or regulations, or make changes to existing laws or regulations, that could impact the demand for or value of our solutions.

If we are unable to adapt our solutions to changing regulatory standards in a timely manner, or if our solutions fail to assist with or expedite our customers' compliance initiatives, our customers may lose confidence in our solutions and could switch to products offered by our competitors. In addition, if regulations and standards related to data security, vulnerability management and other IT, security and compliance requirements are relaxed or the penalties for non-compliance are changed in a manner that makes them less onerous, our customers may view government and industry regulatory compliance as less critical to their businesses, and our customers may be less willing to purchase our solutions. In any of these cases, our revenues and operating results could be harmed.

If our solutions fail to detect vulnerabilities or incorrectly detect vulnerabilities, our brand and reputation could be harmed, which could have an adverse effect on our business and results of operations.

If our solutions fail to detect vulnerabilities in our customers' IT infrastructures, or if our solutions fail to identify and respond to new and increasingly complex methods of attacks, our business and reputation may suffer. There is no guarantee that our solutions will detect all vulnerabilities. Additionally, our IT, security and compliance solutions may falsely detect vulnerabilities or threats that do not actually exist. For example, some of our solutions rely on information on attack sources aggregated from third-party data providers who monitor global malicious activity originating from a variety of sources, including anonymous proxies, specific IP addresses, botnets and phishing sites. If the information from these data providers is inaccurate, the potential for false indications of security vulnerabilities increases. These false positives, while typical in the industry, may impair the perceived reliability or usability of our solutions and may therefore adversely impact market acceptance of our solutions and could result in negative publicity, loss of customers and sales, increased costs to remedy any incorrect information or problem, or claims by aggrieved parties. Similar issues may be generated by the misuse of our tools to identify and exploit vulnerabilities.

Further, our solutions sometimes are tested against other security products, and may fail to perform as effectively, or to be perceived as performing as effectively, as competitive products for any number of reasons, including misconfiguration. To the extent current or potential customers, channel partners, or others believe there has been an occurrence of an actual or perceived failure of our solutions to detect a vulnerability or otherwise to function as effectively as competitive products in any particular test, or indicates our solutions do not provide significant value, our business, competitive position, and reputation could be harmed.

In addition, our solutions do not currently extend to cover all mobile and personal devices that employees may bring into an organization. As such, our solutions would not identify or address vulnerabilities in all mobile and personal devices, and our customers' IT infrastructures may be compromised by attacks that infiltrate their networks through such devices.

An actual or perceived security breach or theft of the sensitive data of one of our customers, regardless of whether the breach is attributable to the failure of our solutions, could adversely affect the market's perception of our security solutions.

If we are unable to continue the expansion of our sales force, sales of our solutions and the growth of our business would be harmed.

We believe that our growth will depend, to a significant extent, on our success in recruiting and retaining a sufficient number of qualified sales personnel and their ability to obtain new customers, manage our existing customer base and expand the sales of our newer solutions. We plan to continue to expand our sales force and make a significant investment in our sales and marketing activities. Our recent hires and planned hires may not become as productive as quickly as we would like, and we may be unable to hire or retain sufficient numbers of qualified individuals in the future in the competitive markets where we do business. Competition for highly skilled personnel is frequently intense and we may not be able to compete for these employees. If we are unable to recruit and retain a sufficient number of productive sales personnel, sales of our solutions and the growth of our business may be harmed. Additionally, if our efforts do not result in increased revenues, our operating results could be negatively impacted due to the upfront operating expenses associated with expanding our sales force.

We rely on third-party channel partners to generate a substantial amount of our revenues, and if we fail to expand and manage our distribution channels, our revenues could decline and our growth prospects could suffer.

Our success significantly depends to a significant extent on establishing and maintaining relationships with a variety of channel partners and we anticipate that we will continue to depend on these partners in order to grow our business. For the years ended December 31, 2022, 2021 and 2020, we derived approximately 42%, 41% and 42%, respectively, of our revenues from sales of subscriptions for our solutions through channel partners, and the percentage of revenues derived from channel partners may increase in future periods. Our agreements with our channel partners are generally non-exclusive and do not prohibit them from working with our competitors or offering competing solutions, and many of our channel partners have more established relationships with our competitors. If our channel partners choose to place greater emphasis on products of their own or those offered by our competitors, do not effectively market and sell our solutions, or fail to meet the needs of our customers, then our ability to grow our business and sell our solutions may be adversely affected. In addition, the loss of one or more of our larger channel partners, who may cease marketing our solutions with limited or no notice, and our possible inability to replace them, could adversely affect our sales. Moreover, our ability to expand our distribution channels depends in part on our ability to educate our channel partners about our solutions, which can be complex. Our failure to recruit additional channel partners, or any reduction or delay in their sales of our solutions or conflicts between channel sales and our direct sales and marketing activities may harm our results of operations. Even if we are successful, these relationships may not result in greater customer usage of our solutions or increased revenues.

In addition, the financial health of our channel partners and our continuing relationships with them are important to our success. Some of these channel partners may be unable to withstand adverse changes in economic conditions, which could result in insolvency and/or the inability of such distributors to obtain credit to finance purchases of our products and services. In addition, weakness in the end-user market could negatively affect the cash flows of our channel partners who could, in turn, delay paying their obligations to us, which would increase our credit risk exposure. Our business could be harmed if the financial condition of some of these channel partners substantially weakened and we were unable to timely secure replacement channel partners.

A significant portion of our customers, channel partners and employees are located outside of the United States, which subjects us to a number of risks associated with conducting international operations, and if we are unable to successfully manage these risks, our business and operating results could be harmed.

We market and sell subscriptions to our solutions throughout the world and have personnel in many parts of the world. In addition, we have sales offices and research and development facilities outside the United States and we conduct, and expect to continue to conduct, a significant amount of our business with organizations that are located outside the United States, particularly in Europe and Asia. Therefore, we are subject to risks associated with having international sales and worldwide operations, including:

- foreign currency exchange fluctuations;
- trade and foreign exchange restrictions;
- economic or political instability in foreign markets, including as a result of increasing tensions between India and China;
- greater difficulty in enforcing contracts, accounts receivable collection and longer collection periods;
- changes in regulatory requirements;
- tax laws (including U.S. taxes on foreign subsidiaries);
- difficulties and costs of staffing and managing foreign operations;
- the uncertainty and limitation of protection for intellectual property rights in some countries;
- costs of compliance with foreign laws and regulations and the risks and costs of non-compliance with such laws and regulations;
- costs of complying with U.S. laws and regulations for foreign operations, including the Foreign Corrupt Practices Act, import and export control laws, tariffs, trade barriers, economic sanctions and other regulatory or contractual limitations on our ability to sell our solutions in certain foreign markets, and the risks and costs of non-compliance;
- heightened risks of unfair or corrupt business practices in certain geographies and of improper or fraudulent sales arrangements that may impact financial results and result in restatements of, and irregularities in, financial statements;
- the potential for political unrest, acts of terrorism, hostilities or war;
- management communication and integration problems resulting from cultural differences and geographic dispersion; and
- multiple and possibly overlapping tax structures.

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.

Our business, including the sales of subscriptions of our solutions, may be subject to foreign governmental regulations, which vary substantially from country to country and change from time to time. Failure to comply with these regulations could adversely affect our business. Further, in many foreign countries it is common for others to engage in business practices that are prohibited by our internal policies and procedures or U.S. regulations applicable to us. Although we have implemented policies and procedures designed to ensure compliance with these laws and policies, there can be no assurance that all of our employees, contractors, channel partners and agents have complied or will comply with these laws and policies. Violations of laws or key control policies by our employees, contractors, channel partners or agents could result in delays in revenue recognition, financial reporting misstatements, fines, penalties or the prohibition of the importation or exportation of our solutions and could have a material adverse effect on our business and results of operations. If we are unable to successfully manage the challenges of international operations, our business and operating results could be adversely affected.

In addition, as of December 31, 2022, approximately 75% of our employees were located outside of the United States, with 66% of our employees located in Pune, India. Accordingly, we are exposed to changes in laws governing our employee relationships in various U.S. and foreign jurisdictions, including laws and regulations regarding wage and hour requirements, fair labor standards, employee data privacy, unemployment tax rates, workers' compensation rates, citizenship requirements and payroll and other taxes which may have a direct impact on our operating costs. We may continue to expand our international operations and international sales and marketing activities. Expansion in international markets has required, and will continue to require, significant management attention and resources. We may be unable to scale our infrastructure effectively or as quickly as our competitors in these markets and our revenues may not increase to offset any increased costs and operating expenses, which would cause our results to suffer.

We are exposed to fluctuations in currency exchange rates, which could negatively affect our financial condition and results of operations.

Our reporting currency is the U.S. dollar and we generate a majority of our revenues in U.S. dollars. However, for the year ended December 31, 2022, we incurred approximately 29% of our expenses in foreign currencies, primarily Euros, British Pounds, and Indian Rupee, principally with respect to salaries and related personnel expenses associated with our European and Indian operations. Additionally, for the year ended December 31, 2022, approximately 24% of our revenues were generated in foreign currencies. Accordingly, changes in exchange rates may have a material adverse effect on our business, operating results and financial condition. The exchange rate between the U.S. dollar and foreign currencies has fluctuated substantially in recent years and may continue to fluctuate substantially in the future. We expect that a majority of our revenues will continue to be generated in U.S. dollars for the foreseeable future and that a significant portion of our expenses, including personnel costs, as well as capital and operating expenditures, will continue to be denominated in the Euro, British Pound and Indian Rupee. The result of our operations may be adversely affected by foreign exchange fluctuations.

We use derivative financial instruments to reduce our foreign currency exchange risks. We use foreign currency forward contracts to mitigate the impact of foreign currency fluctuations of certain non-U.S. dollar denominated net asset positions, to date primarily cash, accounts receivable and operating lease liabilities (non-designated), as well as to manage foreign currency fluctuation risk related to forecasted transactions (designated). However, we may not be able to purchase derivative instruments that are adequate to insulate ourselves from foreign currency exchange risks. Additionally, our hedging activities may contribute to increased losses as a result of volatility in foreign currency markets.

If the market for cloud solutions for IT, security and compliance does not evolve as we anticipate, our revenues may not grow and our operating results would be harmed.

Our success depends to a significant extent on the willingness of organizations to increase their use of cloud solutions for their IT, security and compliance. Some organizations may be reluctant to use cloud solutions because they have concerns regarding the risks associated with the reliability or security of the technology delivery model associated with these solutions. If other cloud service providers experience security incidents, loss of customer data, disruptions in service delivery or other problems, the market for cloud solutions as a whole, including our solutions, may be negatively impacted. Moreover, organizations that have invested substantial personnel and financial resources to integrate on-premise software into their businesses may be reluctant or unwilling to migrate to a cloud solution. Organizations that use on-premise security products, such as network firewalls, security information and event management products or data loss prevention solutions, may also believe that these products sufficiently protect their IT infrastructure and deliver adequate security. Therefore, they may continue spending their IT security budgets on these products and may not adopt our IT, security and compliance solutions in addition to or as a replacement for such products.

If customers do not recognize the benefits of our cloud solutions over traditional on-premise enterprise software products, and as a result we are unable to increase sales of subscriptions to our solutions, then our revenues may not grow or may decline, and our operating results would be harmed.

Our business and operations have continued to grow since inception, and if we do not appropriately manage any future growth, or are unable to improve our systems and processes, our operating results may be negatively affected.

We have continued to grow over the last several years, with revenues increasing from \$363.0 million in 2020 to \$489.7 million in 2022, and headcount increasing from 1,498 employees at the beginning of 2020 to 2,143 employees as of December 31, 2022. We rely on information technology systems to help manage critical functions such as order processing, revenue recognition and financial forecasts. To manage any future growth effectively we must continue to improve and expand our IT systems, financial infrastructure, and operating and administrative systems and controls, and continue to manage headcount, capital and processes in an efficient manner. We may not be able to successfully implement improvements to these systems and processes in a timely or efficient manner.

Our failure to improve our systems and processes, or their failure to operate in the intended manner, may result in our inability to manage the growth of our business and to accurately forecast our revenues, expenses and earnings, or to prevent certain losses. In addition, as we continue to grow, our productivity and the quality of our solutions may also be adversely affected if we do not integrate and train our new employees quickly and effectively. Any future growth would add complexity to our organization and require effective coordination across our organization. Failure to manage any future growth effectively could result in increased costs, harm our results of operations and lead to investors losing confidence in our internal systems and processes.

We depend on the continued services and performance of our senior management and other key employees, the loss of any of whom could adversely affect our business, operating results and financial condition.

Our future performance depends to a significant extent on the continued services and continuing contributions of our senior management and other key employees, to execute on our business plan and to identify and pursue new opportunities and product innovations. We do not maintain key-man insurance for any member of our senior management team. Our senior management and key employees are generally employed on an at-will basis, which means that they could terminate their employment with us at any time. From time to time, there may be changes in our senior management team resulting from the termination or departure of executives. For example, we recently announced that we and our Chief Revenue Officer mutually agreed to end his employment on March 31, 2023. The loss of the services of our senior management or other key employees for any reason could significantly delay or prevent the achievement of our development and strategic objectives and harm our business, financial condition and results of operations.

If we are unable to hire, retain and motivate qualified personnel, our business may suffer.

Our future success depends, in part, on our ability to continue to attract and retain highly skilled personnel. The loss of the services of any of our key personnel, the inability to attract or retain qualified personnel or delays in hiring required personnel, particularly in engineering and sales, may seriously harm our business, financial condition and results of operations. Any of our employees may terminate their employment at any time. Competition for highly skilled personnel is frequently intense, especially within our industry, and we may not be able to compete for such personnel.

We are required under accounting principles generally accepted in the United States (U.S. GAAP) to recognize compensation expense in our operating results for employee stock-based compensation under our equity grant programs, which may negatively impact our operating results and may increase the pressure to limit stock-based compensation that we might otherwise offer to current or potential employees, thereby potentially harming our ability to attract or retain highly skilled personnel. In addition, to the extent we hire personnel from competitors, we may be subject to allegations that they have been improperly solicited or divulged proprietary or other confidential information, which could result in a diversion of management's time and our resources.

A portion of our revenues are generated by sales to government entities, which are subject to a number of challenges and risks.

Government entities have historically been particularly concerned about adopting cloud-based solutions for their operations, including security solutions, and increasing sales of subscriptions for our solutions to government entities may be more challenging than selling to commercial organizations. Selling to government entities can be highly competitive, expensive and time-consuming, often requiring significant upfront time and expense without any assurance that we will win a sale. We have invested in the creation of a cloud offering certified under the Federal Information Security Management Act for government usage but we cannot be sure that we will continue to sustain or renew this certification, that the government will continue to mandate such certification or that other government agencies or entities will use this cloud offering. Government demand and payment for our solutions may be impacted by public sector budgetary cycles and funding authorizations, with funding reductions or delays adversely affecting public sector demand for our solutions. Government entities may have contractual or other legal rights to terminate contracts with our channel partners for convenience or due to a default, and any such termination may adversely impact our future results of operations. Governments routinely investigate and audit government contractors' administrative processes, and any unfavorable audit could result in the government refusing to continue buying our solutions, a reduction of revenues or fines or civil or criminal liability if the audit uncovers improper or illegal activities. Any such penalties could adversely impact our results of operations in a material way.

Our success in acquiring and integrating other businesses, products or technologies could impact our financial position.

In order to remain competitive, we have in the past and may in the future seek to acquire additional businesses, products, services or technologies. For example, we acquired certain intellectual property of Spell Security on July 24, 2020, certain intellectual property of TotalCloud on August 19, 2021 and certain assets of Blue Hexagon on October 4, 2022. The environment for acquisitions in our industry is very competitive and acquisition candidate purchase prices may exceed what we would prefer to pay. Moreover, achieving the anticipated benefits of past and future acquisitions will depend in part upon whether we can integrate acquired operations, products and technology in a timely and cost-effective manner, and even if we achieve benefits from acquisitions, such acquisitions may still be viewed negatively by customers, financial markets or investors. The acquisition and integration process is complex, expensive and time-consuming, and may cause an interruption of, or loss of momentum in, product development and sales activities and operations of both companies, as well as divert the attention of management, and we may incur substantial cost and expense. We may issue equity securities which could dilute current stockholders' ownership, incur debt, assume contingent or other liabilities and expend cash in acquisitions, which could negatively impact our financial position, stockholder equity and stock price. We may not find suitable acquisition candidates, and acquisitions we complete may be unsuccessful. If we consummate a transaction, we may be unable to integrate and manage acquired products and businesses effectively or retain key personnel. If we are unable to effectively execute acquisitions, our business, financial condition and operating results could be adversely affected.

We rely on software-as-a-service vendors to operate certain functions of our business and any failure of such vendors to provide services to us could adversely impact our business and operations.

We rely on third-party software-as-a-service vendors to operate certain critical functions of our business, including financial management and human resource management. If these services become unavailable due to extended outages or interruptions or because they are no longer available on commercially reasonable terms or prices, our expenses could increase, our ability to manage our finances could be interrupted and our processes for managing sales of our solutions and supporting our customers could be impaired until equivalent services, if available, are identified, obtained and integrated, all of which could harm our business.

Incorrect or improper implementation or use of our solutions could result in customer dissatisfaction and harm our business and reputation.

If our customers are unable to implement our solutions successfully, customer perceptions of our platform and solutions may be impaired or our reputation and brand may suffer. Our customers have in the past inadvertently misused our solutions, which triggered downtime in their internal infrastructure until the problem was resolved. Additionally, any failure to implement and configure our solutions correctly may result in our solutions failing to detect vulnerabilities or compliance issues, or otherwise to perform effectively, and may result in disruptions to our customers' IT environments and businesses. Any misuse of our solutions, including any failure to implement and configure them appropriately, could result in disruption to our customers' businesses, customer dissatisfaction, negative impacts on the perceived reliability or effectiveness of our solutions, and claims and litigation, and may result in negative press coverage, negative effects on our reputation and competitive position, a loss of sales, customers, and channel partners, and harm our financial results.

We recognize revenues from subscriptions over the term of the relevant service period, and therefore any decreases or increases in bookings are not immediately reflected in our operating results.

We recognize revenues from subscriptions over the term of the relevant service period, which is typically one year. As a result, most of our reported revenues in each quarter are derived from the recognition of deferred revenues relating to subscriptions entered into during previous quarters. Consequently, a shortfall in demand for our solutions in any period may not significantly reduce our revenues for that period, but could negatively affect revenues in future periods. Accordingly, the effect of significant downturns in bookings may not be fully reflected in our results of operations until future periods. We may be unable to adjust our costs and expenses to compensate for such a potential shortfall in revenues. Our subscription model also makes it difficult for us to rapidly increase our revenues through additional bookings in any period, as revenues are recognized ratably over the subscription period.

Our business is subject to the risks of earthquakes, fire, power outages, floods and other catastrophic events, and to interruption by man-made problems such as terrorism.

A significant natural disaster, such as an earthquake, fire or a flood, or a significant power outage could have a material adverse impact on our business, operating results and financial condition. Our corporate headquarters and a significant portion of our operations are located in the San Francisco Bay Area, a region known for seismic activity. In addition, natural disasters could affect our business partners' ability to perform services for us on a timely basis. In the event we or our business partners are hindered by any of the events discussed above, our ability to provide our solutions to customers could be delayed, resulting in our missing financial targets, such as revenues and net income, for a particular quarter. Further, if a natural disaster occurs in a region from which we derive a significant portion of our revenues, customers in that region may delay or forego subscriptions of our solutions, which may materially and adversely impact our results of operations for a particular period. In addition, war, acts of terrorism, pandemics or other health emergencies, or responses to these events could cause disruptions in our business or the business of our business partners, customers or the economy as a whole. All of the aforementioned risks may be exacerbated if the disaster recovery plans for us and our suppliers prove to be inadequate. To the extent that any of the above results in delays of customer subscriptions or commercialization of our solutions, our business, financial condition and results of operations could be adversely affected.

Risks Related to Intellectual Property, Legal, Tax and Regulatory Matters

Undetected software errors or flaws in our solutions could harm our reputation, decrease market acceptance of our solutions or result in liability.

Our solutions may contain undetected errors or defects when first introduced or as new versions are released. We have experienced these errors or defects in the past in connection with new solutions and solution upgrades and we expect that these errors or defects will be found from time to time in the future in new or enhanced solutions after commercial release of these solutions. Since our customers use our solutions for IT, security and compliance reasons, any errors, defects, disruptions in service or other performance problems with our solutions, or any other failure of our solutions to detect vulnerabilities or compliance problems or otherwise to perform effectively, may result in disruptions or damage to the business of our customers, including security breaches or compliance failures. Additionally, any such issues, or the perception that they have occurred, whether or not relating to any actual or perceived error or defect in our solutions, could hurt our reputation and competitive position and we may incur significant costs, the attention of key personnel could be diverted, our customers may delay or withhold payment to us or elect not to renew, we could face a loss of sales, customers, and channel partners, and other significant problems with our relationships with customers and channel partners may arise. We may also be subject to liability claims for damages related to actual or perceived errors or defects in our solutions. A material liability claim or other occurrence that harms our reputation or decreases market acceptance of our solutions may harm our business, competitive and financial position, and operating results.

Although we maintain insurance coverage that may be applicable to certain liabilities in connection with these matters, we cannot be certain that our insurance coverage will be adequate for liabilities that actually are incurred, that insurance will continue to be available to us on economically reasonable terms, or at all, or that any 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 have a material and adverse effect on our business, including our financial condition, operating results and reputation.

Our solutions could be used to collect and store personal information of our customers' employees or customers, and therefore privacy and other data handling concerns could result in additional cost and liability to us or inhibit sales of our solutions.

We collect the names and email addresses of our customers in connection with subscriptions to our solutions. Additionally, the data that our solutions collect to help secure and protect the IT infrastructure of our customers may include additional personal or confidential information of our customers' employees and their customers. Personal privacy has become a significant issue in the United States and in many other countries where we offer our solutions. The regulatory framework for privacy issues worldwide is currently evolving and is likely to remain uncertain for the foreseeable future. Many federal, state and foreign government bodies and agencies have adopted or are considering adopting laws and regulations regarding the collection, use, disclosure and retention of personal information. In the United States, these include, for example, rules and regulations promulgated under the authority of the Federal Trade Commission, the Health Insurance Portability and Accountability Act of 1996, the Gramm-Leach-Bliley Act, and state breach notification laws. Internationally, virtually every jurisdiction in which we operate has established its own data security and privacy legal framework with which we or our customers must comply.

These privacy, data protection and information security laws and regulations may result in ever-increasing regulatory and public scrutiny and escalating levels of enforcement and sanctions. Additionally, new laws and regulations relating to privacy and data protection continue to be proposed and enacted. For example, the European Union has adopted the Global Data Protection Regulation ("GDPR"). This regulation, which took effect in May of 2018, provides for substantial obligations relating to the handling, storage and other processing of data relating to individuals and administrative fines for violations, which can be up to four percent of the previous year's annual revenue or €20 million, whichever is higher. The GDPR may be subject to new or changing interpretations by courts, and our interpretation of the law and efforts to comply with the rules and regulations of the law may be ruled invalid. Similarly, the California Consumer Privacy Act ("CCPA") requires covered companies to, among other things, provide new disclosures to California consumers and affords such consumers new rights to opt-out of certain sales of personal information. The CCPA also creates a private right of action for statutory damages for certain breaches of information. Certain aspects of the CCPA and its interpretation remain uncertain and are likely to remain uncertain for an extended period. Additionally, a new privacy law, the California Privacy Rights Act ("CPRA"), was approved by voters in the November 3, 2020 election. The CPRA modifies the CCPA significantly, creating obligations relating to consumer data beginning on January 1, 2022, and enforcement is expected to commence on July 1, 2023. Passage of the CPRA has resulted in further uncertainty and may require us to incur additional costs and expenses in an effort to comply. In addition, other states have enacted or proposed legislation that regulates the collection, use, and sale of personal information, and such regimes might not be compatible with the GDPR, the CCPA or the CPRA or may require us to undertake additional practices. Accordingly, we cannot yet predict the impact of the CCPA, CPRA or other evolving privacy and data protection obligations on our business or operations, but it may require us to modify our data processing practices and policies and incur substantial costs and expenses in an effort to comply.

The privacy, data protection, and information security laws and regulations we must comply with also are subject to change. For example, the United Kingdom enacted a Data Protection Act in May 2018 that substantially implements the GDPR, but the United Kingdom's exit from the European Union, commonly referred to as "Brexit," could lead to further legislative and regulatory changes. It remains unclear how United Kingdom data protection laws or regulations will develop in the medium to longer term and how data transfers to and from the United Kingdom will be regulated. Additionally, we have joined the EU-U.S. Privacy Shield Framework and a related program, the Swiss-U.S. Privacy Shield Framework, and adopted certain standard contractual clauses approved by the European Commission ("SCCs") as part of our data processing agreements with regard to certain transfers of personal data from the European Economic Area ("EEA") to the U.S. to ensure that we work with vendors that have adopted the same, where appropriate. While both the EU-U.S. Privacy Shield Framework and SCCs have been subject to legal challenge, we continue to analyze the July 2020 "Schrems II" decision by the Court of Justice of the European Union ("CJEU") and its impact on our data transfer mechanisms as well as subsequent guidance from data privacy regulators and new SCCs published by the European Commission in June 2021, and we may find it necessary or appropriate to take different or additional steps with respect to transfers of personal data, which may result in increased costs of compliance and limitations on our customers and us. We may be unsuccessful in maintaining legitimate means for our transfer and receipt of personal data from the EEA or Switzerland. We may experience reluctance or refusal by current or prospective European customers to use our products, and we and our customers may face a risk of enforcement actions by data protection authorities in the EEA relating to personal data transfers to us and by us from the EEA. Any such enforcement actions could result in substantial costs and diversion of resources, distract management and technical personnel and negatively affect our business, operating results and financial condition. Some countries also are considering or have passed legislation requiring local storage and processing of data, or similar requirements, which could increase the cost and complexity of delivering our services.

In addition to laws and regulations, privacy advocacy and industry groups or other private parties may propose new and different privacy standards that either legally or contractually apply to us. Because the interpretation and application of privacy and data protection laws, regulations, standards and contractual obligations are uncertain, it is possible that they may be interpreted and applied in a manner that is, or perceived to be, inconsistent with our data management practices or the features of our solutions. If so, in addition to the possibility of regulatory investigations and enforcement actions, fines, lawsuits and other claims, other forms of injunctive or operations-limiting relief, and damage to our reputations and loss of goodwill, we could be required to fundamentally change our business activities and practices or modify our solutions and may face limitations in our ability to develop new solutions and features, any of which could have an adverse effect on our business. Any inability to adequately address privacy concerns, even if unfounded, or any actual or perceived inability to comply with applicable privacy or data protection laws, regulations and privacy standards, could result in cost and liability to us, damage our reputation, inhibit sales of subscriptions and harm our business.

Furthermore, the costs of compliance with, and other burdens imposed by, the laws, regulations, and privacy standards that are applicable to the businesses of our customers may limit the use and adoption of, and reduce the overall demand for, our solutions. Privacy concerns, whether valid or not valid, may inhibit market adoption of our solutions particularly in certain industries and foreign countries.

Our solutions contain third-party open source software components, and our failure to comply with the terms of the underlying open source software licenses could restrict our ability to sell our solutions.

Our solutions contain software licensed to us by third-parties under so-called “open source” licenses, including the GNU General Public License, the GNU Lesser General Public License, the BSD License, the Apache License and others. From time to time, there have been claims against companies that distribute or use open source software in their products and services, asserting that such open source software infringes the claimants’ intellectual property rights. We could be subject to suits by parties claiming that what we believe to be licensed open source software infringes their intellectual property rights. Use and distribution of open source software may entail greater risks than use of third-party commercial software, as open source licensors generally do not provide warranties or other contractual protections regarding infringement claims or the quality of the code. In addition, certain open source licenses require that source code for software programs that are subject to the license be made available to the public and that any modifications or derivative works to such open source software continue to be licensed under the same terms. If we combine our proprietary software with open source software in certain ways, we could, in some circumstances, be required to release the source code of our proprietary software to the public. Disclosing the source code of our proprietary software could make it easier for cyber attackers and other third parties to discover vulnerabilities in or to defeat the protections of our solutions, which could result in our solutions failing to provide our customers with the security they expect from our services. This could harm our business and reputation. Disclosing our proprietary source code also could allow our competitors to create similar products with lower development effort and time and ultimately could result in a loss of sales for us. Any of these events could have a material adverse effect on our business, operating results and financial condition.

Although we monitor our use of open source software in an effort both to comply with the terms of the applicable open source licenses and to avoid subjecting our solutions to conditions we do not intend, the terms of many open source licenses have not been interpreted by U.S. 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 solutions. In this event, we could be required to seek licenses from third parties to continue offering our solutions, to make our proprietary code generally available in source code form, to re-engineer our solutions or to discontinue the sale of our solutions if re-engineering could not be accomplished on a timely basis, any of which could adversely affect our business, operating results and financial condition.

We use third-party software and data that may be difficult to replace or cause errors or failures of our solutions that could lead to lost customers or harm to our reputation and our operating results.

We license third-party software as well as security and compliance data from various third parties to deliver our solutions. In the future, this software or data may not be available to us on commercially reasonable terms, or at all. Any loss of the right to use any of this software or data could result in delays in the provisioning of our solutions until equivalent technology or data is either developed by us, or, if available, is identified, obtained and integrated, which could harm our business. In addition, any errors or defects in or failures of this third-party software or data could result in errors or defects in our solutions or cause our solutions to fail, which could harm our business and be costly to correct. Many of these providers attempt to impose limitations on their liability for such errors, defects or failures, and if enforceable, we may have additional liability to our customers or third-party providers that could harm our reputation and increase our operating costs.

We will need to maintain our relationships with third-party software and data providers, and to obtain software and data from such providers that do not contain any errors or defects. Any failure to do so could adversely impact our ability to deliver effective solutions to our customers and could harm our operating results.

Failure to protect our proprietary technology and intellectual property rights could substantially harm our business and operating results.

The success of our business depends in part on our ability to protect and enforce our trade secrets, trademarks, copyrights, patents and other intellectual property rights. We attempt to protect our intellectual property under copyright, trade secret, patent and trademark laws, and through a combination of confidentiality procedures, contractual provisions and other methods, all of which offer only limited protection.

We primarily rely on our unpatented proprietary technology and trade secrets. Despite our efforts to protect our proprietary technology and trade secrets, unauthorized parties may attempt to misappropriate, reverse engineer or otherwise obtain and use them. The contractual provisions that we enter into with employees, consultants, partners, vendors and customers may not prevent unauthorized use or disclosure of our proprietary technology or intellectual property rights and may not provide an adequate remedy in the event of unauthorized use or disclosure of our proprietary technology or intellectual property rights. Moreover, policing unauthorized use of our technologies, solutions and intellectual property is difficult, expensive and time-consuming, particularly in foreign countries where the laws may not be as protective of intellectual property rights as those in the United States and where mechanisms for enforcement of intellectual property rights may be weak. We may be unable to determine the extent of any unauthorized use or infringement of our solutions, technologies or intellectual property rights.

The process of obtaining patent protection is expensive and time-consuming, and we may not be able to prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner, if at all. We may choose not to seek patent protection for certain innovations and may choose not to pursue patent protection in certain jurisdictions.

Furthermore, it is possible that our patent applications may not result in granted patents, that the scope of our issued patents will be limited or not provide the coverage originally sought, that our issued patents will not provide us with any competitive advantages, or that our patents and other intellectual property rights may be challenged by others or invalidated through administrative processes or litigation. In addition, issuance of a patent does not guarantee that we have an absolute right to practice the patented invention. As a result, we may not be able to obtain adequate patent protection or to enforce our issued patents effectively.

From time to time, legal action by us may be necessary to enforce our patents and other intellectual property rights, to protect our trade secrets, to determine the validity and scope of the intellectual property rights of others or to defend against claims of infringement or invalidity. Such litigation could result in substantial costs and diversion of resources and could negatively affect our business, operating results and financial condition. If we are unable to protect our intellectual property rights, we may find ourselves at a competitive disadvantage to others who need not incur the additional expense, time and effort required to create the innovative solutions that have enabled us to be successful to date.

Assertions by third parties of infringement or other violations by us of their intellectual property rights could result in significant costs and harm our business and operating results.

Patent and other intellectual property disputes are common in our industry. Some companies, including some of our competitors, own large numbers of patents, copyrights and trademarks, which they may use to assert claims against us. Third parties may in the future assert claims of infringement, misappropriation or other violations of intellectual property rights against us. They may also assert such claims against our customers or channel partners whom we typically indemnify against claims that our solutions infringe, misappropriate or otherwise violate the intellectual property rights of third parties. As the numbers of products and competitors in our market increase and overlaps occur, claims of infringement, misappropriation and other violations of intellectual property rights may increase. Any claim of infringement, misappropriation or other violation of intellectual property rights by a third party, even those without merit, could cause us to incur substantial costs defending against the claim and could distract our management from our business.

The patent portfolios of our most significant competitors are larger than ours. This disparity may increase the risk that they may sue us for patent infringement and may limit our ability to counterclaim for patent infringement or settle through patent cross-licenses. In addition, future assertions of patent rights by third parties, and any resulting litigation, may involve patent holding companies or other adverse patent owners who have no relevant product revenues and against whom our own patents may therefore provide little or no deterrence or protection. There can be no assurance that we will not be found to infringe or otherwise violate any third-party intellectual property rights or to have done so in the past.

An adverse outcome of a dispute may require us to:

- pay substantial damages, including treble damages, if we are found to have willfully infringed a third party's patents or copyrights;
- cease making, licensing or using solutions that are alleged to infringe or misappropriate the intellectual property of others;
- expend additional development resources to attempt to redesign our solutions or otherwise develop non-infringing technology, which may not be successful;
- enter into potentially unfavorable royalty or license agreements in order to obtain the right to use necessary technologies or intellectual property rights; and
- indemnify our partners and other third parties.

In addition, royalty or licensing agreements, if required or desirable, may be unavailable on terms acceptable to us, or at all, and may require significant royalty payments and other expenditures. Some licenses may also be non-exclusive, and therefore our competitors may have access to the same

technology licensed to us. Any of the foregoing events could seriously harm our business, financial condition and results of operations.

Governmental export or import controls could subject us to liability if we violate them or limit our ability to compete in foreign markets.

Our solutions are subject to U.S. export controls, specifically, the Export Administration Regulations and economic sanctions enforced by the Office of Foreign Assets Control. We incorporate encryption technology into certain of our solutions. These encryption solutions and the underlying technology may be exported only with the required export authorizations, including by license, a license exception or other appropriate government authorizations. U.S. export controls may require submission of an encryption registration, product classification and/or annual or semi-annual reports. Governmental regulation of encryption technology and regulation of imports or exports of encryption products, or our failure to obtain required import or export authorization for our solutions, when applicable, could harm our international sales and adversely affect our revenues. Compliance with applicable regulatory requirements regarding the export of our solutions, including with respect to new releases of our solutions, may create delays in the introduction of our solutions in international markets, prevent our customers with international operations from deploying our solutions throughout their globally-distributed systems or, in some cases, prevent the export of our solutions to some countries altogether. In addition, various countries regulate the import of our appliance-based solutions and have enacted laws that could limit our ability to distribute solutions or could limit our customers' ability to implement our solutions in those countries. Any new export or import restrictions, new legislation or shifting approaches in the enforcement or scope of existing regulations, or in the countries, persons or technologies targeted by such regulations, could result in decreased use of our solutions by existing customers with international operations, declining adoption of our solutions by new customers with international operations and decreased revenues. If we fail to comply with export and import regulations, we may be fined or other penalties could be imposed, including denial of certain export privileges.

If we are required to collect higher sales and use or other taxes on the solutions we sell, we may be subject to liability for past sales and our future sales may decrease.

Taxing jurisdictions, including state and local entities, have differing rules and regulations governing sales and use or other taxes, and these rules and regulations are subject to varying interpretations that may change over time. In particular, the applicability of sales taxes to our subscription services in various jurisdictions is unclear. It is possible that we could face sales tax audits and that our liability for these taxes could exceed our estimates as tax authorities could still assert that we are obligated to collect additional amounts as taxes from our customers and remit those taxes to those authorities. We could also be subject to audits with respect to state and international jurisdictions for which we may not have accrued tax liabilities. A successful assertion that we should be collecting additional sales or other taxes on our services in jurisdictions where we have not historically done so and do not accrue for sales taxes could result in substantial tax liabilities for past sales, discourage customers from purchasing our solutions or otherwise harm our business and operating results.

Changes in our income tax provision or adverse outcomes resulting from examination of our income tax returns could adversely affect our operating results. We could be subject to additional taxes.

We are subject to income taxes in the United States and various foreign jurisdictions, and our domestic and international tax liabilities are subject to the allocation of expenses in differing jurisdictions. Our tax rate is affected by changes in the mix of earnings and losses in countries with differing statutory tax rates, certain non-deductible expenses and excess tax benefits arising from stock-based compensation, other tax benefits and credits, and the valuation of deferred tax assets and liabilities. Increases in our effective tax rate could harm our operating results.

Additionally, significant judgment is required in evaluating our tax positions and our worldwide tax provisions. During the ordinary course of business, there are many activities and transactions for which the ultimate tax determination is uncertain. In addition, our tax obligations and effective tax rates could be adversely affected by changes in the relevant tax, accounting and other laws, regulations, principles and interpretations, including those relating to income tax nexus, by recognizing tax losses or lower than anticipated earnings in jurisdictions where we have lower statutory rates and higher than anticipated earnings in jurisdictions where we have higher statutory rates, by changes in foreign currency exchange rates, or by changes in the valuation of our deferred tax assets and liabilities. The United States introduced a new 1% excise tax on share repurchases occurring on or after January 1, 2023 as part of the Inflation Reduction Act. The amount of share repurchases subject to the excise tax will be reduced by the fair market value of any shares issued during the taxable year. We do not expect this provision to have a material impact to our results of operations. We may be audited in various jurisdictions, and such jurisdictions may assess additional taxes, sales taxes and value-added taxes against us. Although we believe our tax estimates are reasonable, the final determination of any tax audits or litigation could be materially different from our historical tax provisions and accruals, which could have a material adverse effect on our operating results or cash flows in the period or periods for which a determination is made.

Risks Related to Ownership of Our Common Stock

Market volatility may affect our stock price and the value of an investment in our common stock and could subject us to litigation.

The trading price of our common stock has been, and may continue to be, subject to significant fluctuations in response to a number of factors, most of which we cannot predict or control, including:

- announcements of new solutions, services or technologies, commercial relationships, acquisitions or other events by us or our competitors;
- fluctuations in stock market prices and trading volumes of securities of similar companies;
- general market conditions and overall fluctuations in U.S. equity markets;
- variations in our operating results, or the operating results of our competitors;
- changes in our financial guidance or securities analysts' estimates of our financial performance;
- changes in accounting principles;
- sales of large blocks of our common stock, including sales by our executive officers, directors and significant stockholders;
- additions or departures of any of our key personnel;
- announcements related to litigation;
- changing legal or regulatory developments in the United States and other countries; and
- discussion of us or our stock price by the financial press and in online investor communities.

In addition, the stock market in general, and the stocks of technology companies such as ours in particular, have experienced substantial price and volume volatility that is often seemingly unrelated to the operating performance of particular companies. These broad market fluctuations may cause the trading price of our common stock to decline. In the past, securities class action litigation has often been brought against a company after a period of volatility in the trading price of its common stock. We may become involved in this type of litigation in the future. Any securities litigation claims brought against us could result in substantial expenses and the diversion of our management's attention from our business.

Our actual operating results may differ significantly from our guidance.

From time to time, we have released, and may continue to release, guidance in our quarterly earnings conference calls, quarterly earnings releases, or otherwise, regarding our future performance that represents our management's estimates as of the date of release. This guidance, which includes forward-looking statements, has been and will be based on projections prepared by our management. These projections are not prepared with a view toward compliance with published guidelines of the American Institute of Certified Public Accountants, and neither our registered public accountants nor any other independent expert or outside party compiles or examines the projections. Accordingly, no such person expresses any opinion or any other form of assurance with respect to the projections.

Projections are based upon a number of assumptions and estimates that, while presented with numerical specificity, are inherently subject to significant business, economic and competitive uncertainties and contingencies, many of which are beyond our control and are based upon specific assumptions with respect to future business decisions, some of which will change. We intend to state possible outcomes as high and low ranges which are intended to provide a sensitivity analysis as variables are changed but are not intended to imply that actual results could not fall outside of the suggested ranges. The principal reason that we release guidance is to provide a basis for our management to discuss our business outlook with analysts and investors. We do not accept any responsibility for any projections or reports published by any such third parties.

Guidance is necessarily speculative in nature, and it can be expected that some or all of the assumptions underlying the guidance furnished by us will not materialize or will vary significantly from actual results. Accordingly, our guidance is only an estimate of what management believes is realizable as of the date of release. Actual results may vary from our guidance and the variations may be material. In light of the foregoing, investors are urged not to rely upon our guidance in making an investment decision regarding our common stock.

Any failure to successfully implement our operating strategy or the occurrence of any of the events or circumstances set forth in this "Risk Factors" section in this Annual Report on Form 10-K could result in our actual operating results being different from our guidance, and the differences may be adverse and material.

Future sales of shares by existing stockholders could cause our stock price to decline.

The market price of shares of our common stock could decline as a result of substantial sales of our common stock, particularly sales by our directors, executive officers, employees and significant stockholders, a large number of shares of our common stock becoming available for sale, or the perception in the market that holders of a large number of shares intend to sell their shares. As of December 31, 2022, we had approximately 37.4 million shares of our common stock outstanding.

In addition, as of December 31, 2022, there were approximately 1.8 million options and 1.1 million restricted stock units outstanding. If such options are exercised and restricted stock units are released, these additional shares will become available for sale. As of December 31, 2022, we had an aggregate of 2.4 million shares of our common stock reserved for future issuance under our Restated 2012 Equity Incentive Plan and 0.6 million shares reserved for future purchase under our 2021 Employee Stock Purchase Plan, which can be freely sold in the public market upon issuance. If a large number of these shares are sold in the public market, the sales could reduce the trading price of our common stock.

We cannot guarantee that our share repurchase program will be fully consummated or that it will enhance stockholder value, and any share repurchases we make could affect the price of our common stock.

On February 12, 2018, we announced that our board of directors had authorized a \$100.0 million repurchase program. On each of October 30, 2018, October 30, 2019, May 7, 2020, February 10, 2021 and February 9, 2023, we announced that our board of directors had authorized an increase of \$100.0 million, and on each of November 3, 2021 and May 4, 2022, we announced that our board of directors had authorized an increase of \$200.0 million to the share repurchase program, resulting in an aggregate authorization of \$1.0 billion to date (\$900.0 million as of December 31, 2022). Although our board of directors authorized the share repurchase program, we are not obligated to repurchase any specific dollar amount or to acquire any specific number of shares. The share repurchase program could affect the price of our common stock, increase volatility and diminish our cash reserves. In addition, it may be suspended or terminated at any time, which may result in a decrease in the price of our common stock. Finally, our share repurchases in 2023 will be subject to a new 1% excise tax introduced in the Inflation Reduction Act. The amount of share repurchases subject to the excise tax will be reduced by the fair market value of any shares issues during the taxable year. We do not expect this provision to have a material impact to our results of operations. During the year ended December 31, 2022, we repurchased 2.5 million shares of our common stock for approximately \$317.3 million. As of December 31, 2022, approximately \$154.5 million remained available for share repurchases pursuant to our share repurchase program.

We do not intend to pay dividends on our common stock and therefore any returns will be limited to the value of our stock.

We have never declared or paid any cash dividend on our common stock. We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. Any return to stockholders will therefore be limited to the value of their stock.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.

Our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that may delay or prevent an acquisition of us or a change in our management. These provisions include:

- authorizing “blank check” preferred stock, which could be issued by our board of directors without stockholder approval and may contain voting, liquidation, dividend and other rights superior to our common stock, which would increase the number of outstanding shares and could thwart a takeover attempt;
- a classified board of directors whose members can only be dismissed for cause;
- the prohibition on actions by written consent of our stockholders;
- the limitation on who may call a special meeting of stockholders;
- the establishment of advance notice requirements for nominations for election to our board of directors or for proposing matters that can be acted upon at stockholder meetings; and
- the requirement of at least two-thirds of the outstanding capital stock to amend any of the foregoing second through fifth provisions.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which limits the ability of stockholders owning in excess of 15% of our outstanding voting stock to merge or combine with us. Although we believe these provisions collectively provide for an opportunity to obtain greater value for stockholders by requiring potential acquirers to negotiate with our board of directors, they would apply even if an offer rejected by our board of directors were considered beneficial by some stockholders. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management.

General Risk Factors

Disruptive technologies could gain wide adoption and supplant our cloud-based IT, security and compliance solutions, thereby weakening our sales and harming our results of operations.

The introduction of products and services embodying new technologies could render our existing solutions obsolete or less attractive to customers. Our business could be harmed if new IT, security and compliance technologies are widely adopted. We may not be able to successfully anticipate or adapt to changing technology or customer requirements on a timely basis, or at all. If we fail to keep up with technological changes or to convince our customers and potential customers of the value of our solutions even in light of new technologies, our business could be harmed and our revenues may decline.

We may not maintain profitability in the future.

We may not be able to sustain or increase our growth or maintain profitability in the future. We plan to continue to invest in our infrastructure, new solutions, research and development and sales and marketing, and as a result, we cannot assure you that we will maintain profitability. We may incur losses in the future for a number of reasons, including without limitation, the other risks and uncertainties described in this Annual Report on Form 10-K. Additionally, we may encounter unforeseen operating expenses, difficulties, complications, delays and other unknown factors that may result in losses in future periods. If our revenue growth does not meet our expectations in future periods, our financial performance may be harmed and we may not again achieve or maintain profitability in the future.

Forecasts of market growth may prove to be inaccurate, and even if the markets in which we compete achieve the forecasted growth, there can be no assurance that our business will grow at similar rates, or at all.

Growth forecasts relating to the expected growth in the market for IT, security and compliance and other markets are subject to significant uncertainty and are based on assumptions and estimates which may prove to be inaccurate. Even if these markets experience the forecasted growth, we may not grow our business at similar rates, or at all. Our growth is subject to many factors, including our success in implementing our business strategy, which is subject to many risks and uncertainties. Accordingly, forecasts of market growth should not be taken as indicative of our future growth.

Our financial results are based in part on our estimates or judgments relating to our critical accounting policies. These estimates or judgments may prove to be incorrect, which could harm our operating results and result in a decline in our stock price.

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, as provided in the section titled “Part I, Item 2 - Management’s Discussion and Analysis of Financial Condition and Results of Operations,” the results of which form the basis for making judgments about the carrying values of assets, liabilities, equity, revenues and expenses that are not readily apparent from other sources. Our operating results may be adversely affected if our assumptions change or if actual circumstances differ from those in our assumptions, which could cause our operating results to fall below the expectations of securities analysts and investors, resulting in a decline in our stock price. Significant assumptions and estimates used in preparing our consolidated financial statements include those related to revenue recognition, accounting for income taxes and stock-based compensation.

Changes in financial accounting standards may cause adverse and unexpected revenue fluctuations and impact our reported results of operations.

We prepare our financial statements in accordance with U.S. GAAP. These principles are subject to interpretation by the SEC and various bodies formed to interpret and create appropriate accounting principles. A change in these accounting standards or practices could harm our operating results and could have a significant effect on our reporting of transactions and reported results and may even retroactively affect previously reported transactions. New accounting pronouncements and varying interpretations of accounting pronouncements have occurred and may occur in the future. Changes to existing rules or the questioning of current practices may harm our operating results or require that we make significant changes to our systems, processes and controls or the way we conduct our business.

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

As a public company, we are subject to the reporting requirements of the Securities Exchange Act of 1934, or the Exchange Act, the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, and the rules and regulations of the NASDAQ Stock Market. To continue to comply with the requirements of being a public company, we may need to undertake various actions, such as implementing additional internal controls and procedures and hiring additional accounting or internal audit staff.

Our 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 in accordance with U.S. GAAP. Our current controls and any new controls that we develop may become inadequate because of changes in conditions in our business. Any failure to maintain effective controls, or any difficulties encountered in their improvement, could harm our operating results or cause us to fail to meet our reporting obligations. Any failure to maintain effective internal control over financial reporting also could adversely affect the results of periodic management evaluations regarding the effectiveness of our internal control over financial reporting that we are required to include in our periodic reports we file with the SEC under Section 404 of the Sarbanes-Oxley Act. While we were able to assert in our Annual Report on Form 10-K that our internal control over financial reporting was effective as of December 31, 2022, we cannot predict the outcome of our testing in future periods. If we are unable to assert in any future reporting period that our internal control over financial reporting is effective (or if our independent registered public accounting firm is unable to express an opinion on the effectiveness of our internal controls), investors may lose confidence in our operating results and our stock price could decline. In addition, if we are unable to continue to meet these requirements, we may not be able to remain listed on the NASDAQ Stock Market.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our principal executive offices are located in Foster City, California, where we occupy a 76,922 square-foot facility under a lease expiring on April 30, 2028. We also have 281,787 square feet of office space in Pune, India under a non-cancellable lease expiring in February 2025. We have additional U.S. offices in North Carolina and Washington and other offices in France, Germany, Italy, Japan, the Netherlands, United Arab Emirates and United Kingdom. We believe our facilities are adequate for our current needs and for the foreseeable future.

We operate shared cloud platforms at third-party facilities in Santa Clara, California; Las Vegas, Nevada; Ontario, Canada; Geneva, Switzerland; Pune, India; and Amsterdam, the Netherlands.

Item 3. Legal Proceedings

From time to time the Company may become involved in legal proceedings or be subject to claims arising in the ordinary course of our business. As of December 31, 2022, there has not been at least a reasonable possibility that the Company has incurred a material loss from any ongoing legal proceedings, individually or taken together. However, litigation is inherently unpredictable and is subject to significant uncertainties, some of which are beyond the Company's control. Should any of these estimates and assumptions change or prove to have been incorrect, the Company could incur significant charges related to legal matters which could have a material impact on its results of operations, financial position and cash flows. For more information, please refer to Note 9 in the accompanying notes to the consolidated financial statements, which is hereby incorporated by reference.

Item 4. Mine Safety Disclosures

Not Applicable.

PART II

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

Our common stock is listed and traded on the Nasdaq Global Select Market under the symbol "QLYS".

Holders of Record

As of February 14, 2023, there were approximately 52 holders of record of our common stock. Because many of our shares of common stock are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of stockholders represented by these record holders.

Dividend Policy

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain any future earnings to fund business development and growth, and do not expect to pay any dividends in the foreseeable future. Any future determination to declare cash dividends will be made at the discretion of our board of directors, subject to applicable laws, and will depend on a number of factors, including our financial condition, results of operations, capital requirements, contractual restrictions, general business conditions and other factors that our board of directors may deem relevant.

Securities Authorized for Issuance under Equity Compensation Plans

The following table summarizes information about our equity compensation plans as of December 31, 2022. All outstanding awards relate to our common stock.

| Plan Category | (a) Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (in thousands) | (b) Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights | (c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a)) (in thousands) |
|---|---|---|---|
| Equity compensation plans approved by security holders ⁽¹⁾ | 2,990 ⁽²⁾ | \$ 87.59 ⁽³⁾ | 2,906 ⁽⁴⁾ |
| Equity compensation plans not approved by security holders | — | \$ — | — |

(1) Includes our Restated 2012 Equity Incentive Plan (Restated 2012 Plan) and 2021 Employee Stock Purchase Plan (2021 ESPP).

(2) Consists of 1,183 thousand restricted stock units and 1,807 thousand shares underlying stock options.

(3) The weighted average exercise price is calculated based solely on outstanding stock options.

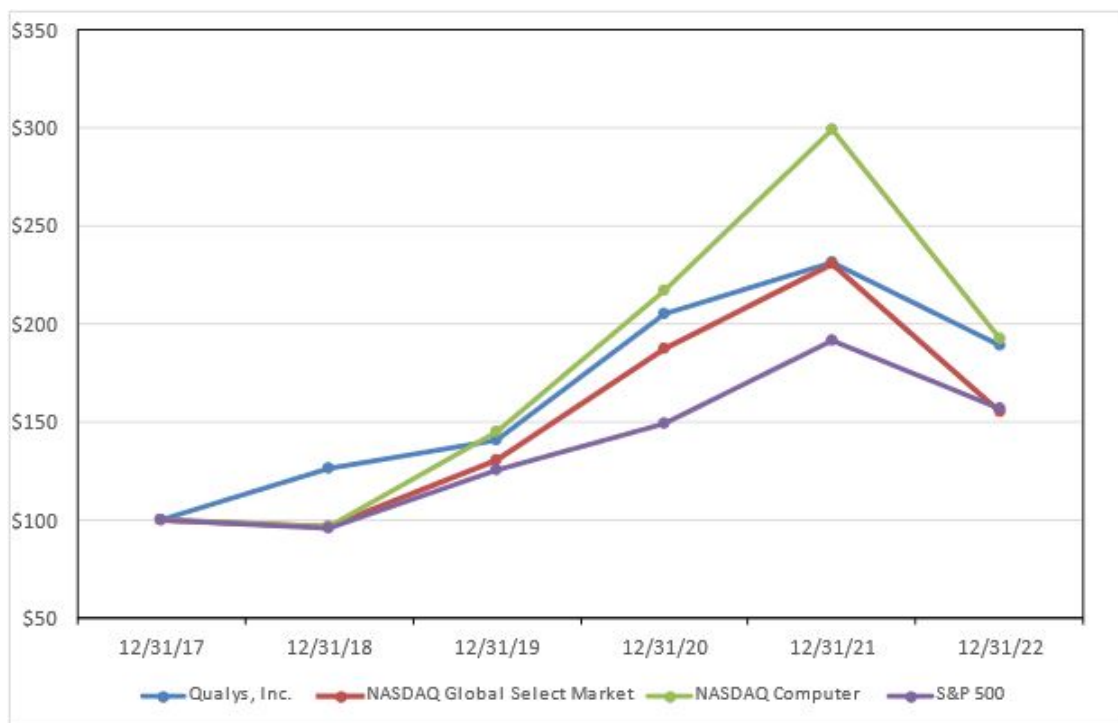
(4) Consists of 2,351 thousand shares reserved for issuance under our Restated 2012 Plan and 555 thousand shares reserved for issuance under our 2021 ESPP.

Stock Price Performance Graph

The following graph shows a comparison from December 31, 2017 through December 31, 2022 of the cumulative total return for an investment of \$100 (and the reinvestment of dividends) in our common stock, the NASDAQ Global Select Market Composite Index and the NASDAQ Computer Index and the S&P 500 Index. Such returns are based on historical results and are not intended to suggest future performance.

COMPARISON OF CUMULATIVE TOTAL RETURN*
Among Qualys, Inc., NASDAQ-Global Select Market Composite Index, and NASDAQ Computer Index and S&P 500 Index

* \$100 invested on December 31, 2017 in stock or index, including reinvestment of dividends. Fiscal year ending December 31.



| | December 31, 2017 | December 31, 2018 | December 31, 2019 | December 31, 2020 | December 31, 2021 | December 31, 2022 |
|-----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Qualys, Inc. | \$ 100.00 | \$ 125.93 | \$ 140.47 | \$ 205.34 | \$ 231.20 | \$ 189.10 |
| NASDAQ Global Select Market | \$ 100.00 | \$ 96.32 | \$ 130.62 | \$ 186.83 | \$ 230.03 | \$ 155.00 |
| NASDAQ Computer | \$ 100.00 | \$ 96.32 | \$ 144.80 | \$ 217.17 | \$ 299.39 | \$ 192.28 |
| S&P 500 | \$ 100.00 | \$ 95.62 | \$ 125.72 | \$ 148.85 | \$ 191.58 | \$ 156.88 |

The information on the above Stock Price Performance Graph 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.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

A summary of our repurchases of common stock during the three months ended December 31, 2022 is as follows:

| Period | Total Number of Shares Purchased | Average Price Paid per Share | Total Number of Shares Purchased as Part of Publicly Announced Plan or Program (1) | Approximate Dollar Value of Shares that May Yet Be Purchased under the Plan or Program |
|--------------------------------------|---|-------------------------------------|---|---|
| October 1, 2022 - October 31, 2022 | 231,057 | \$ 136.68 | 231,057 | \$ 227,405,137 |
| November 1, 2022 - November 30, 2022 | 285,100 | \$ 121.98 | 285,100 | \$ 192,628,215 |
| December 1, 2022 - December 31, 2022 | 331,441 | \$ 115.09 | 331,441 | \$ 154,481,340 (2) |
| Total | 847,598 | | 847,598 | |

(1) On February 5, 2018, our board of directors authorized a \$100.0 million share repurchase program, which was announced on February 12, 2018. On each of October 30, 2018, October 30, 2019, May 7, 2020 and February 10, 2021, we announced that our board of directors had authorized an increase of \$100.0 million, and on each of November 3, 2021 and May 4, 2022, we announced that our board of directors had authorized an increase of \$200.0 million to the share repurchase program, resulting in an aggregate authorization of \$900.0 million as of December 31, 2022. Shares may be repurchased from time to time on the open market in accordance with Rule 10b-18 of the Exchange Act of 1934. We have entered into a pre-set trading plan adopted in accordance with Rule 10b5-1 under the Exchange Act to effect repurchases under our share repurchase program. All share repurchases have been made using cash resources. Our share repurchase program does not have an expiration date.

(2) Does not reflect the \$100.0 million increase to our share repurchase program announced on February 9, 2023.

Item 6. [RESERVED]

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

You should read the following discussion in conjunction with our consolidated financial statements and the related notes included elsewhere in this Annual Report on Form 10-K. You should carefully review and consider the information regarding our financial condition and results of operations set forth under Part I-Item 7 (Management's Discussion and Analysis of Financial Condition and Results of Operations) in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, filed with the SEC on February 22, 2022, for an understanding of our results of operations and liquidity discussions and analysis comparing fiscal year 2021 to fiscal year 2020, which information is hereby incorporated by reference. In addition to historical information, this discussion contains forward-looking statements that involve risks and uncertainties that could cause our actual results to differ materially from our expectations, as discussed in "Forward-Looking Statements" in Part I of this Annual Report on Form 10-K. Factors that could cause such differences include, but are not limited to, those described in the section titled "Risk Factors" and elsewhere in this Annual Report on Form 10-K.

Overview

We are a pioneer and leading provider of a cloud-based platform delivering IT, security and compliance solutions that enable organizations to identify security risks to their IT infrastructures, help protect their IT systems and applications from ever-evolving cyber-attacks and achieve compliance with internal policies and external regulations. Our cloud solutions address the growing security and compliance complexities and risks that are amplified by the dissolving boundaries between internal and external IT infrastructures and web environments, the rapid adoption of cloud computing, containers and serverless IT models, and the proliferation of geographically dispersed IT assets. Our integrated suite of IT, security and compliance solutions delivered on our Qualys Cloud Platform enables our customers to identify and manage their IT assets, collect and analyze large amounts of IT security data, discover and prioritize vulnerabilities, recommend and implement remediation actions and verify the implementation of such actions. Organizations use our integrated suite of solutions to cost-effectively obtain a unified view of their IT asset inventory as well as security and compliance posture across globally-distributed IT infrastructures as our solution offers a single platform for information technology, information security, application security, endpoint, developer security and cloud teams.

We were founded and incorporated in December 1999 with a vision of transforming the way organizations secure and protect their IT infrastructure and applications and initially launched our first cloud solution, Vulnerability Management (VM), in 2000. As VM gained acceptance, we introduced additional solutions to help customers manage increasing IT, security and compliance requirements. Today, the suite of solutions that we offer on our cloud platform and refer to as the Qualys Cloud Apps helps our customers protect a range of assets across on-premises, endpoints, cloud, containers, and mobile environments. These Cloud Apps address and include:

- *IT Security:* Vulnerability Management (VM), Vulnerability Management, Detection and Response (VMDR), Threat Protection (TP), Continuous Monitoring (CM), Patch Management (PM), Multi-Vector Endpoint Detection and Response (EDR), Certificate Assessment (CRA), SaaS Detection and Response (SaaS DR), Secure Enterprise Mobility (SEM), Custom Assessment and Remediation (CAR), Context Extended Detection and Response (XDR), Network Detection and Response (NDR);
- *Compliance:* Policy Compliance (PC), Security Configuration Assessment (SCA), PCI Compliance (PCI), File Integrity Monitoring (FIM), Security Assessment Questionnaire (SAQ), Out of-Band Configuration Assessment (OCA);
- *Web Application Security:* Web Application Scanning (WAS), Web Application Firewall (WAF);
- *Asset Management:* Global AssetView (GAV), Cybersecurity Asset Management (CSAM), Certificate Inventory (CRI); and
- *Cloud/Container Security:* Cloud Inventory (CI), Cloud Security Assessment (CSA), Container Security (CS).

We provide our solutions through a software-as-a-service model, primarily with renewable annual subscriptions. These subscriptions require customers to pay a fee in order to access each of our cloud solutions. We generally invoice our customers for the entire subscription amount at the start of the subscription term, and the invoiced amounts are treated as deferred revenues and are recognized ratably over the term of each subscription. We continue to experience revenue growth from our existing customers as they renew and purchase additional subscriptions, as well as from the addition of new customers to our cloud platform.

We market and sell our solutions to enterprises, government entities and small and medium-sized businesses across a broad range of industries, including education, financial services, government, healthcare, insurance, manufacturing, media, retail, technology and utilities. In 2022, 2021 and 2020, 60%, 61% and 63%, respectively, of our revenues were derived from customers in the United States based on our customers' billing addresses. We sell our solutions to enterprises and government entities primarily through our field sales force and to small and medium-sized businesses through our inside sales force. We generate a significant portion of sales through our channel partners, including managed security service providers, value-added resellers and consulting firms in the United States and internationally.

Impacts of Current Macroeconomic Environment

The uncertainty surrounding macroeconomic factors in the U.S. and globally characterized by COVID-19, the supply chain environment, inflationary pressure, rising interest rates, labor shortages, significant volatility of global markets and geopolitical conflicts have had and could in the future have a material adverse effect on our long-term business and could lead to further economic disruption and expose us to greater risk as our current and potential customers may reduce or eliminate their overall spending on IT security. We will continue to evaluate the nature and extent of the impact to our business, financial position, results of operations and cash flows.

Key Components of Results of Operations

Revenues

We derive revenues from the sale of subscriptions to our IT, security and compliance solutions, which are delivered on our cloud platform. Subscriptions to our solutions allow customers to access our cloud-based IT, security and compliance solutions through a unified, web-based interface. Customers generally enter into one-year renewable subscriptions. The subscription fee entitles the customer to an unlimited number of scans for a specified number of devices or web applications and, if requested by a customer as part of their subscription, a specified number of physical or virtual scanner appliances. Our physical and virtual scanner appliances are requested by certain customers as part of their subscriptions in order to scan IT infrastructures within their firewalls and do not function without, and are not sold separately from, subscriptions for our solutions. In some cases, we also provide certain computer equipment used to extend our Qualys Cloud Platform into our customers' private cloud environment. Customers are required to return physical scanner appliances and computer equipment if they do not renew their subscriptions.

We typically invoice our customers for the entire subscription amount at the start of the subscription term. Invoiced amounts are reflected on our consolidated balance sheets as accounts receivable or as cash when collected, and as deferred revenues until earned and recognized ratably over the subscription period. Accordingly, deferred revenues represent the amount billed to customers that has not yet been earned or recognized as revenues, pursuant to subscriptions entered into in current and prior periods.

Cost of Revenues

Cost of revenues consists primarily of personnel expenses, comprised of salaries, benefits, performance-based compensation and stock-based compensation, for employees who operate our shared cloud platforms and provide support services to our customers. Other expenses include depreciation of shared cloud platform equipment, physical scanner appliances and computer hardware provided to certain customers as part of their subscriptions, expenses related to the use of third-party shared cloud platforms and cloud infrastructures, amortization of software and license fees, amortization of intangibles related to acquisitions, maintenance support, fees paid to contractors who supplement or support our operations center personnel and overhead allocations. We expect to continue to make capital investments to expand and support our shared cloud platform and cloud infrastructure operations, which will increase the cost of revenues in absolute dollars.

Operating Expenses

Research and Development

Research and development expenses consist primarily of personnel expenses, comprised of salaries, benefits, performance-based compensation and stock-based compensation, for our research and development teams. Other expenses include third-party contractor fees, software and license fees, amortization of intangibles related to acquisitions and overhead allocations. We expect to continue to devote resources to research and development in an effort to continuously improve our existing solutions as well as develop new solutions and capabilities and expect that research and development expenses will increase in absolute dollars.

Sales and Marketing

Sales and marketing expenses consist primarily of personnel expenses, comprised of salaries, benefits, sales commissions, performance-based compensation and stock-based compensation for our worldwide sales and marketing teams. Other expenses include marketing and promotional events, lead-generation marketing programs, public relations, travel, software licenses and overhead allocations. Sales commissions related to new business and upsells are capitalized as an asset. We amortize the capitalized commission cost as a selling expense on a straight-line basis over a period of five years. We expense sales commissions related to contract renewals as incurred. Our new sales personnel are typically not immediately productive, and the resulting increase in sales and marketing expenses we incur when we add new personnel may not result in increased revenues if these new sales personnel fail to become productive. The timing of our hiring of sales personnel, or the participation in new marketing events or programs, and the rate at which these generate incremental revenues, may affect our future operating results. We expect to continue to invest in additional sales personnel worldwide and also in more marketing programs to support new solutions on our platform, which will increase sales and marketing expenses in absolute dollars.

General and Administrative

General and administrative expenses consist primarily of personnel expenses, comprised of salaries, benefits, performance-based compensation and stock-based compensation for our executive, finance and accounting, IT, legal and human resources teams, as well as professional services, fees, software licenses and overhead allocations. We expect that general and administrative expenses will increase in absolute dollars, as we continue to add personnel and incur professional services to support our growth and compliance with legal requirements.

Other Income (Expense), Net

Our other income (expense), net consists primarily of interest and investment income from our short-term and long-term marketable securities and foreign exchange gains and losses, the majority of which result from fluctuations between the U.S. Dollar and the Euro, British Pound ("GBP") and Indian Rupee ("INR").

Income Tax Provision

We are subject to federal, state and foreign income taxes for jurisdictions in which we operate, and we use estimates in determining our income tax provision and deferred tax assets. Earnings from our non-U.S. activities are subject to income taxes in the local countries at rates which were generally similar to the U.S. statutory tax rate.

Results of Operations

The following table sets forth selected consolidated statements of operations data for each of the periods presented as a percentage of revenues:

| | Year Ended December 31, | |
|----------------------------|--------------------------------|-------------|
| | 2022 | 2021 |
| Revenues | 100% | 100% |
| Cost of revenues | 21 | 22 |
| Gross profit | 79 | 78 |
| Operating expenses: | | |
| Research and development | 21 | 20 |
| Sales and marketing | 20 | 19 |
| General and administrative | 12 | 18 |
| Total operating expenses | 53 | 57 |
| Income from operations | 26 | 21 |
| Total other income, net | 1 | — |
| Income before income taxes | 27 | 21 |
| Income tax provision | 5 | 4 |
| Net income | 22% | 17% |

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

| | Year Ended | | Change | |
|----------|---|-------------|---------------|----------|
| | December 31, | | | |
| | 2022 | 2021 | \$ | % |
| | (in thousands, except percentages) | | | |
| Revenues | \$ 489,723 | \$ 411,172 | \$ 78,551 | 19% |

Revenues increased by \$78.6 million in 2022 compared to 2021, driven by increased demand for our subscription services by our end customers. Of the total increase of \$78.6 million in revenue from 2021 to 2022, 80% was from revenues from customers existing at or prior to December 31, 2021, and the remaining 20% was from new customers added in 2022. Of the total increase of \$78.6 million, 51% was from customers in the United States and the remaining 49% was from customers in foreign countries. In 2022, 58% of total revenue was direct and 42% of total revenue was through partners. Of the total increase of \$78.6 million, 53% was direct and the remaining 47% was from partners. With our strong market position driving further demand for our solutions, we expect revenue growth from new and existing customers to continue.

Cost of Revenues

| | Year Ended December 31, | | Change | |
|------------------|---|-------------|---------------|----------|
| | 2022 | 2021 | \$ | % |
| | (in thousands, except percentages) | | | |
| Cost of revenues | \$ 102,788 | \$ 89,439 | \$ 13,349 | 15% |

Cost of revenues increased by \$13.3 million in 2022 compared to 2021, due to an increase in personnel costs of \$9.5 million driven by additional employees hired to support the growth of our business, an increase in shared cloud platform and cloud costs of \$2.0 million to meet growing demand and an increase in software license cost of \$1.8 million.

Research and Development Expenses

| | Year Ended December 31, | | Change | |
|--------------------------|---|-------------|---------------|----------|
| | 2022 | 2021 | \$ | % |
| | (in thousands, except percentages) | | | |
| Research and development | \$ 101,186 | \$ 81,289 | \$ 19,897 | 24% |

Research and development expenses increased by \$19.9 million in 2022 compared to 2021, due to an increase in personnel costs of \$18.3 million primarily driven by additional employees hired to support the growth of our business, an increase in software license cost of \$1.0 million and an increase in travel and entertainment expense of \$0.6 million due to easing of COVID-19 related travel restrictions.

Sales and Marketing Expenses

| | Year Ended December 31, | | Change | |
|---------------------|---|-------------|---------------|----------|
| | 2022 | 2021 | \$ | % |
| | (in thousands, except percentages) | | | |
| Sales and marketing | \$ 97,221 | \$ 76,487 | \$ 20,734 | 27% |

Sales and marketing expenses increased by \$20.7 million in 2022 compared to 2021, due to an increase in personnel costs of \$9.9 million driven by additional employees hired to support the growth of our business, an increase in trade show and other advertising related costs of \$5.7 million, an increase of consulting expense of \$2.3 million, an increase of travel and entertainment expense of \$1.8 million associated with the easing of COVID-19 related travel restrictions and an increase in software license cost of \$1.0 million.

General and Administrative Expenses

| | Year Ended December 31, | | Change | |
|----------------------------|---|-------------|---------------|----------|
| | <u>2022</u> | <u>2021</u> | <u>\$</u> | <u>%</u> |
| | (in thousands, except percentages) | | | |
| General and administrative | \$ 57,981 | \$ 76,274 | \$ (18,293) | (24)% |

General and administrative expenses decreased by \$18.3 million in 2022 compared to 2021, due to a decrease in stock-based compensation expense of \$27.3 million related to accelerated vesting of our former chief executive officer's grants upon termination due to disability in 2021, offset by an increase in personnel costs of \$3.8 million driven by additional employees hired to support the growth of our business, an increase in software license cost of \$1.0 million, an increase in consulting expense of \$1.9 million, an increase in legal accrual of \$1.5 million and an increase of travel and entertainment expense of \$0.8 million associated with the easing of COVID-19 related travel restrictions.

Total other income, net

| | Year Ended December 31, | | Change | |
|-------------------------|---|-------------|---------------|----------|
| | <u>2022</u> | <u>2021</u> | <u>\$</u> | <u>%</u> |
| | (in thousands, except percentages) | | | |
| Total other income, net | \$ 3,153 | \$ 1,714 | \$ 1,439 | 84% |

Total other income, net increased by \$1.4 million in 2022 compared to 2021, due to an increase in interest income of \$2.9 million driven by continued interest rate increase in 2022, offset by an increase in foreign exchange loss of \$1.5 million.

Income tax provision

| | Year Ended December 31, | | Change | |
|----------------------|---|-------------|---------------|----------|
| | <u>2022</u> | <u>2021</u> | <u>\$</u> | <u>%</u> |
| | (in thousands, except percentages) | | | |
| Income tax provision | \$ 25,708 | \$ 18,437 | \$ 7,271 | 39% |

Income tax provision increased by \$7.3 million in 2022 compared to 2021, primarily due to an increase in pre-tax income and the effects of a tax law change related to mandatory capitalization of research and development expenses starting January 1, 2022, offset by an increase in excess tax benefits arising from stock-based compensation.

Key Operating and Non-GAAP Financial Performance Metrics

In addition to measures of financial performance presented in our consolidated financial statements, we monitor the key metrics set forth below to help us evaluate growth trends, establish budgets, measure the effectiveness of our sales and marketing efforts and assess operational efficiencies.

Net Dollar Expansion Rate

We evaluate our ability to retain and grow existing customers by assessing our net dollar expansion rate on a last twelve months, or LTM, basis. This metric is used to appropriately manage resources and customer retention and expansion. We calculate the net dollar expansion rate on a foreign exchange neutral basis by dividing a numerator by a denominator, each defined as follows:

Denominator: To calculate our net dollar expansion rate as of the end of a reporting period, we first determine the annual recurring revenue, or ARR, from all active subscriptions as of the last day of the same reporting period in the prior year. This represents recurring payments that we expect to receive in the next 12-month period from the cohort of customers that existed on the last day of the same reporting period in the prior year.

Numerator: We measure the ARR for that same cohort of customers representing all active subscriptions as of the end of the reporting period, using the same foreign exchange rate from the prior year.

Our net dollar expansion rates were 109% and 108% for the years ended December 31, 2022 and 2021, respectively.

Adjusted EBITDA

We monitor Adjusted EBITDA, a non-GAAP financial measure, to analyze our financial results and believe that it is useful to investors, as a supplement to U.S. GAAP measures, in evaluating our ongoing operational performance and enhancing an overall understanding of our past financial performance. We believe that Adjusted EBITDA helps illustrate underlying trends in our business that could otherwise be masked by the effect of the income or expenses that we exclude in Adjusted EBITDA. Furthermore, we use this measure to establish budgets and operational goals for managing our business and evaluating our performance. We also believe that Adjusted EBITDA provides an additional tool for investors to use in comparing our recurring core business operating results over multiple periods with other companies in our industry.

Adjusted EBITDA should not be considered in isolation from, or as a substitute for, financial information prepared in accordance with U.S. GAAP. We calculate Adjusted EBITDA as net income before (1) other (income) expense, net, which includes interest income, interest expense and other income and expense, (2) income tax provision (benefit), (3) depreciation and amortization of property and equipment, (4) amortization of intangible assets, (5) stock-based compensation and (6) non-recurring expenses that do not reflect ongoing costs of operating the business.

Adjusted EBITDA has limitations as an analytical tool and should not be considered in isolation from or as a substitute for the measures presented in accordance with U.S. GAAP. Some of these limitations are:

- Adjusted EBITDA does not reflect certain cash and non-cash charges that are recurring;
- Adjusted EBITDA does not reflect income tax payments that reduce cash available to us;
- Adjusted EBITDA excludes depreciation and amortization of property and equipment and amortization of intangible assets, although these are non-cash charges, the assets being depreciated and amortized may have to be replaced in the future; and
- Other companies, including companies in our industry, may calculate Adjusted EBITDA differently or not at all, which reduces its usefulness as a comparative measure.

Because of these limitations, Adjusted EBITDA should be considered alongside other financial performance measures, including revenues, net income, cash flows from operating activities and our financial results presented in accordance with U.S. GAAP.

The following unaudited table presents the reconciliation of net income to Adjusted EBITDA for the years ended December 31, 2022 and 2021.

| | Year Ended December 31, | |
|---|--------------------------------|-------------|
| | 2022 | 2021 |
| | (in thousands) | |
| Net income | \$ 107,992 | \$ 70,960 |
| Net income as a percentage of revenues | 22% | 17% |
| Depreciation and amortization of property and equipment | 28,936 | 29,236 |
| Amortization of intangible assets | 5,686 | 6,661 |
| Income tax provision | 25,708 | 18,437 |
| Stock-based compensation | 53,408 | 67,579 |
| Total other income, net | (3,153) | (1,714) |
| Adjusted EBITDA | \$ 218,577 | \$ 191,159 |
| Adjusted EBITDA as a percentage of revenues | 45% | 46% |

Liquidity and Capital Resources

As of December 31, 2022, our principal source of liquidity was cash, cash equivalents and marketable securities of \$380.5 million, including \$52.7 million of cash held outside of the United States. The following summary of cash flows for the periods indicated has been derived from our consolidated financial statements included elsewhere in this report:

| | Year Ended December 31, | |
|---|--------------------------------|------------------|
| | 2022 | 2021 |
| | (in thousands) | |
| Cash provided by operating activities | \$ 198,854 | \$ 200,616 |
| Cash provided by (used in) investing activities | 145,068 | (29,532) |
| Cash used in financing activities | (306,031) | (107,888) |
| Net increase (decrease) in cash, cash equivalents and restricted cash | <u>\$ 37,891</u> | <u>\$ 63,196</u> |

Operating Activities

In 2022, we generated \$177.2 million of cash from our net income, as adjusted for non-cash items mainly related to stock-based compensation expense, depreciation and amortization expense and deferred taxes, as compared to \$169.6 million in 2021. In addition, we also generated \$21.7 million of cash from working capital change in 2022, of which \$11.8 million was related to net increase in deferred revenue and accounts receivable as a result of our continued growth in billing and collection, and \$9.9 million was due to lower prepaid expenses and an increase in payables and accrued liabilities in line with our business. In 2021, we generated \$31.0 million of cash from working capital change, of which \$37.4 million was related to net increase in deferred revenue and accounts receivable as a result of our continued growth in billing and collection, partially offset by higher prepaid income taxes of \$6.9 million.

Net cash taxes paid, excluding prepaid income taxes, during 2022 were approximately \$20.0 million higher compared to 2021, primarily due to the new tax law requiring mandatory capitalization and amortization of research and development expenses effective January 1, 2022. Previously, these expenses could be deducted in the year incurred. The near term increase in cash tax will be offset by a decrease in cash taxes in future years when the capitalized expenses are amortized for tax purposes.

Investing Activities

In 2022, we generated \$169.0 million of cash in marketable securities investment, used \$15.4 million of cash in capital expenditures mainly related to computer equipment to support our growth and development and \$8.6 million of cash to acquire certain technology assets, as compared to \$4.5 million of cash used in marketable securities investment, \$24.4 million of cash used in capital expenditures and \$1.1 million of cash used for acquisition of technology assets in 2021.

Financing Activities

In 2022, we used \$317.3 million of cash for share repurchase and \$17.6 million of cash in payment of employee withholding taxes upon vesting of restricted stock units and received \$24.5 million of proceeds from employee exercise of stock options, as compared to \$130.0 million of cash used for share repurchase, \$27.8 million of cash used in payment of employee withholding taxes upon vesting of restricted stock units and \$50.0 million of cash received from employee exercise of stock options in 2021. Net cash used in financing activities are expected to be lower in 2023 due to expected lower volume of share repurchase.

We believe our existing cash and cash equivalents, marketable securities and our expected cash flow generated from operations will be sufficient to fund our operations for the next twelve months and beyond. We do not anticipate that we will need funds generated from foreign operations to fund our domestic operations. However, if we repatriate these funds, we could be subject to foreign withholding taxes.

Our material cash requirements mainly include the following contractual and other obligations:

- Our operating lease obligations to make payments under our non-cancelable lease agreements for our facilities and shared cloud platforms. We had fixed operating lease payment obligations of \$46.4 million as of December 31, 2022, with \$14.9 million expected to be paid within the next 12 months.
- Cash outflow for capital expenditures in 2023 is expected to be in a range of \$18.0 million to \$25.0 million. Our future capital requirements will depend on many factors, including our rate of revenue growth, the expansion of our sales and marketing activities, the timing, type and extent of our spending on research and development efforts, international expansion and investment in shared cloud platforms and cloud infrastructures. We may also seek to invest in or acquire complementary businesses or technologies.
- Other non-cancelable purchase obligations related to cloud infrastructures and other service providers totaled \$77.1 million, of which \$25.6 million is expected to be paid within the next 12 months.

We expect to continue to use cash to repurchase shares in 2023 under our share repurchase program authorized by our board of directors on February 5, 2018. As of December 31, 2022, our board of directors had authorized an aggregate amount of \$900.0 million for repurchases under our share repurchase program, of which approximately \$154.5 million remained available. Shares will be repurchased from time to time on the open market in accordance with Rule 10b-18 of the Exchange Act of 1934, including pursuant to a pre-set trading plan adopted in accordance with Rule 10b5-1 under the Exchange Act.

On February 9, 2023, we announced that its Board of Directors authorized the repurchase of an additional \$100.0 million under our share repurchase program, increasing the total amount of authorized repurchase to \$1.0 billion.

Critical Accounting Estimates

The preparation of our consolidated financial statements in accordance with U.S. GAAP requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses and related disclosures. Our significant accounting policies are described in Note 1 - The Company and Summary of Significant Accounting Policies in the accompanying notes to the consolidated financial statements included in Part II, Item 8, "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K. On an ongoing basis, we evaluate our estimates and assumptions based on historical and anticipated results and trends that we believe represent our best estimate under the circumstances. However, as accounting estimates are subject to inherent uncertainty, our actual results may differ from these estimates under different assumptions or conditions.

Income Taxes

Significant assumptions, judgments and estimates are involved in determining our provision for (benefit from) income taxes, our deferred tax assets and liabilities, and any valuation allowance to be recorded against our deferred tax assets. Our judgments, assumptions and estimates relating to the current provision for income taxes include the geographic mix and amount of income (loss), expectations of future income, our interpretation of current tax laws, our business, and possible outcomes of current and future audits conducted by foreign and domestic tax authorities. Our judgments also include anticipating the tax positions we will record in the financial statements before preparing and filing the tax returns. Our estimates and assumptions may differ from the actual results as reflected in our income tax returns and we record the required adjustments when they are identified or resolved. Changes in our business and tax laws or our interpretation of those, and developments in current and future tax audits, could significantly impact the amounts provided for income taxes in our results of operations, financial position, or cash flows.

The assessment of tax effects of our uncertain tax positions in our financial statements involves significant judgment in interpreting complex and ambiguous tax laws, regulations, and administrative practices, determining the probability of various possible settlement outcomes, evaluating the litigation process based on tax authority behaviors in similar cases, and estimating the likelihood that another taxing authority could review the respective tax position. These judgments are inherently challenging and subjective because a taxing authority may change its behavior at any time. We must also determine when it is reasonably possible that the amount of unrecognized tax benefits will significantly increase or decrease in the 12 months after each fiscal year-end. We reevaluate our income tax positions on a quarterly basis to consider factors such as changes in facts or circumstances, changes in tax laws, effectively settled issues under audit, the potential for interest and penalties, and new audit activity. Such a change in recognition or measurement would result in recognition of a tax benefit or an additional charge to the tax provision that could be material in the future.

Stock-Based Compensation

We recognize the fair value of our employee stock options and restricted stock units, including performance-based restricted stock units, over the requisite service period. The fair value of each stock option is estimated on date of grant using the Black-Scholes-Merton option pricing model. Determining the appropriate fair value model and calculating the fair value of employee stock options requires the use of subjective assumptions, including the expected life of the stock option and stock price volatility. The recognition of expenses for performance based restricted stock units requires us to estimate the probability that the performance condition will be achieved and the number of awards that will vest are adjusted accordingly at each reporting period. The assumptions used in calculating the fair value of employee stock options and estimating the probability of achievement of performance metrics represent management's best estimates, which require significant judgment and involve inherent uncertainties. If factors change and we use different assumptions, our stock-based compensation expense could be materially different in the future.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

We have domestic and international operations and we are exposed to market risks in the ordinary course of our business. These risks primarily include interest rate, foreign exchange and inflation risks, as well as risks relating to changes in the general economic conditions in the countries where we conduct business. To reduce certain of these risks, we monitor the financial condition of our large customers and limit credit exposure by collecting subscription fees in advance.

Foreign Currency Risk

Our results of operations and cash flows have been and will continue to be subject to fluctuations because of changes in foreign currency exchange rates, particularly changes in exchange rates between the U.S. Dollar and the Euro, GBP, INR and Canadian Dollar ("C\$"), the currencies of countries where we currently have our most significant international operations. We enter into foreign currency forward contracts to reduce our exposure to foreign currency exchange rate fluctuations related to forecasted subscription revenue, operating expenses and foreign currency denominated assets or liabilities. As of December 31, 2022, we had designated cash flow hedge forward contracts with notional amounts of €37.4 million, £10.4 million and Rs.3,411.0 million and non-designated forward contracts with notional amounts of €40.2 million, £16.2 million, Rs.484.0 million and C\$3.8 million. With our hedging strategy applied, the effect of an immediate 10% adverse change in foreign exchange rates would not be material to our financial condition, operating results or cash flows.

Interest Rate Sensitivity

We had \$380.5 million in cash, cash equivalents and short-term and long-term marketable securities as of December 31, 2022. Cash and cash equivalents include cash held in banks, highly liquid money market funds and commercial paper. Marketable securities consist of fixed-income U.S. Treasury and government agency securities, commercial paper corporate bonds, asset-backed securities and foreign government securities. The primary objectives of our investment activities are the preservation of principal and support of our liquidity requirements. We do not invest for trading or speculative purposes. Our marketable securities are subject to market risk due to changes in interest rates, which may affect the interest income we earn and the fair market value. As of December 31, 2022, a hypothetical 100 basis point increase in interest rate would result in a decrease in the fair value of our marketable securities by \$1.0 million.

Item 8. Financial Statements and Supplementary Data

**Qualys, Inc.
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS**

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders

Qualys, Inc.

Opinion on the financial statements

We have audited the accompanying consolidated balance sheets of Qualys, Inc. (a Delaware corporation) and subsidiaries (the “Company”) as of December 31, 2022 and 2021, the related consolidated statements of operations, comprehensive income, cash flows, and stockholders’ equity for each of the three years in the period ended December 31, 2022, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

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 the 2013 *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”), and our report dated February 23, 2023 expressed an unqualified opinion.

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 and risk 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 judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Income taxes

As described further in Note 12 to the financial statements, the Company records income taxes using the asset and liability method, under which deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to affect taxable income. We identified the tax effects of temporary and permanent differences related to stock-based compensation as a critical audit matter.

The principal considerations for our determination that the tax effects of temporary and permanent differences are a critical audit matter are that auditing the application of executive compensation rules requires significant technical expertise, the Company is generating excess tax deductions as a result of stock-based compensation and the stock-based compensation calculation is complex due to the required recordkeeping. Our audit procedures related to the tax effects of temporary and permanent differences related to stock-based compensation included the following, among others.

- Involved an employee compensation specialist to assess the application of stock-based compensation tax rules.
- Obtained management’s permanent and temporary provision calculation and tied out inputs to supporting equity documentation.
- Tested the completeness and accuracy of the calculation of permanent and temporary differences.
- Determined that the ending gross temporary difference agreed to the supporting equity documentation.
- We tested the design and operating effectiveness of internal controls over the Company’s calculation of the tax effects covering the validation of the completeness and accuracy of underlying data used in the analysis.

/s/ GRANT THORNTON LLP

We have served as the Company’s auditor since 2005.

San Jose, California
February 23, 2023

Report of Independent Registered Public Accounting Firm

Board of Directors and Stockholders

Qualys, Inc.

Opinion on internal control over financial reporting

We have audited the internal control over financial reporting of Qualys, Inc. (a Delaware corporation) and subsidiaries (the “Company”) as of December 31, 2022, based on criteria established in the 2013 *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in the 2013 *Internal Control — Integrated Framework* issued by COSO.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the consolidated financial statements of the Company as of and for the year ended December 31, 2022, and our report dated February 23, 2023 expressed an unqualified opinion on those consolidated financial statements.

Basis for opinion

The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and limitations of internal control over financial reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

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

/s/ GRANT THORNTON LLP

San Jose, California
February 23, 2023

Qualys, Inc.
CONSOLIDATED BALANCE SHEETS
(in thousands, except per share data)

| | December 31, | |
|--|---------------------|-------------------|
| | 2022 | 2021 |
| Assets | | |
| Current assets: | | |
| Cash and cash equivalents | \$ 173,719 | \$ 137,328 |
| Short-term marketable securities | 147,608 | 267,960 |
| Accounts receivable, net of allowance of \$736 and \$793 as of December 31, 2022 and 2021, respectively | 121,795 | 108,998 |
| Prepaid expenses and other current assets | 30,216 | 32,112 |
| Total current assets | 473,338 | 546,398 |
| Long-term marketable securities | 59,206 | 111,198 |
| Property and equipment, net | 47,428 | 61,854 |
| Operating leases - right of use asset | 33,752 | 37,016 |
| Deferred tax assets, net | 45,412 | 25,087 |
| Intangible assets, net | 12,801 | 6,545 |
| Goodwill | 7,447 | 7,447 |
| Restricted cash | 2,700 | 1,200 |
| Other noncurrent assets | 18,857 | 17,814 |
| Total assets | \$ 700,941 | \$ 814,559 |
| Liabilities and Stockholders' Equity | | |
| Current liabilities: | | |
| Accounts payable | \$ 2,808 | \$ 1,296 |
| Accrued liabilities | 42,592 | 32,504 |
| Deferred revenues, current | 293,728 | 257,872 |
| Operating lease liabilities, current | 13,060 | 12,608 |
| Total current liabilities | 352,188 | 304,280 |
| Deferred revenues, noncurrent | 23,490 | 32,753 |
| Operating lease liabilities, noncurrent | 29,121 | 35,914 |
| Other noncurrent liabilities | 7,013 | 4,898 |
| Total liabilities | 411,812 | 377,845 |
| Commitments and contingencies (Note 9) | | |
| Stockholders' equity: | | |
| Preferred stock: \$0.001 par value; 20,000 shares authorized, no shares issued and outstanding as of December 31, 2022 and 2021 | — | — |
| Common stock: \$0.001 par value; 1,000,000 shares authorized, 37,362 and 39,112 shares issued and outstanding as of December 31, 2022 and 2021, respectively | 37 | 39 |
| Additional paid-in capital | 512,486 | 477,323 |
| Accumulated other comprehensive income (loss) | (1,947) | 1,007 |
| Accumulated deficit | (221,447) | (41,655) |
| Total stockholders' equity | 289,129 | 436,714 |
| Total liabilities and stockholders' equity | \$ 700,941 | \$ 814,559 |

The accompanying notes are an integral part of these Consolidated Financial Statements.

Qualys, Inc.
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)

| | Year Ended December 31, | | |
|---|--------------------------------|-------------|-------------|
| | 2022 | 2021 | 2020 |
| Revenues | \$ 489,723 | \$ 411,172 | \$ 362,963 |
| Cost of revenues | 102,788 | 89,439 | 79,226 |
| Gross profit | 386,935 | 321,733 | 283,737 |
| Operating expenses: | | | |
| Research and development | 101,186 | 81,289 | 72,548 |
| Sales and marketing | 97,221 | 76,487 | 67,965 |
| General and administrative | 57,981 | 76,274 | 46,570 |
| Total operating expenses | 256,388 | 234,050 | 187,083 |
| Income from operations | 130,547 | 87,683 | 96,654 |
| Other income (expense), net: | | | |
| Interest expense | — | — | (9) |
| Interest income | 5,191 | 2,287 | 5,385 |
| Other income (expense), net | (2,038) | (573) | 7 |
| Total other income, net | 3,153 | 1,714 | 5,383 |
| Income before income taxes | 133,700 | 89,397 | 102,037 |
| Income tax provision | 25,708 | 18,437 | 10,465 |
| Net income | \$ 107,992 | \$ 70,960 | \$ 91,572 |
| Net income per share: | | | |
| Basic | \$ 2.81 | \$ 1.82 | \$ 2.34 |
| Diluted | \$ 2.74 | \$ 1.77 | \$ 2.25 |
| Weighted average shares used in computing net income per share: | | | |
| Basic | 38,453 | 39,030 | 39,167 |
| Diluted | 39,344 | 40,118 | 40,740 |

The accompanying notes are an integral part of these Consolidated Financial Statements.

Qualys, Inc.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(in thousands)

| | Year Ended December 31, | | |
|---|--------------------------------|------------------|------------------|
| | 2022 | 2021 | 2020 |
| Net income | \$ 107,992 | \$ 70,960 | \$ 91,572 |
| Other comprehensive income (loss), net of tax | | | |
| Net change in unrealized gains (losses) on available-for-sale debt securities, net of tax | (2,520) | (1,409) | 402 |
| Net change in unrealized gains (losses) on cash flow hedges, net of tax | (434) | 2,900 | (2,048) |
| Other comprehensive income (loss), net of tax | (2,954) | 1,491 | (1,646) |
| Comprehensive income | <u>\$ 105,038</u> | <u>\$ 72,451</u> | <u>\$ 89,926</u> |

The accompanying notes are an integral part of these Consolidated Financial Statements.

Qualys, Inc.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

| | Year Ended December 31, | | |
|---|-------------------------|-------------------|------------------|
| | 2022 | 2021 | 2020 |
| Cash flow from operating activities: | | | |
| Net income | \$ 107,992 | \$ 70,960 | \$ 91,572 |
| Adjustments to reconcile net income to net cash provided by operating activities: | | | |
| Depreciation and amortization expense | 34,622 | 35,897 | 32,845 |
| Write off of noncurrent asset | — | 625 | — |
| Provision for credit losses | 590 | 402 | 486 |
| Loss on disposal of property and equipment | 6 | 12 | 106 |
| Stock-based compensation | 53,408 | 67,579 | 40,035 |
| Amortization of premiums on marketable securities | 833 | 3,869 | 826 |
| Deferred income taxes | (20,251) | (9,723) | 3,512 |
| Changes in operating assets and liabilities: | | | |
| Accounts receivable | (13,387) | (9,221) | (22,631) |
| Prepaid expenses and other assets | 3,878 | (15,665) | (2,329) |
| Accounts payable | 2,107 | (32) | (389) |
| Accrued liabilities and other noncurrent liabilities | 3,867 | 9,322 | 5,126 |
| Deferred revenues | 25,189 | 46,591 | 30,927 |
| Net cash provided by operating activities | <u>198,854</u> | <u>200,616</u> | <u>180,086</u> |
| Cash flow from investing activities: | | | |
| Purchases of marketable securities | (178,788) | (368,450) | (391,693) |
| Sales and maturities of marketable securities | 347,837 | 363,941 | 341,879 |
| Purchases of property and equipment | (15,361) | (24,424) | (30,037) |
| Proceeds from disposal of property and equipment | — | 6 | 419 |
| Purchases of intangible assets | (8,620) | (1,230) | (1,500) |
| Maturity of note receivable | — | 625 | — |
| Net cash provided by (used in) investing activities | <u>145,068</u> | <u>(29,532)</u> | <u>(80,932)</u> |
| Cash flow from financing activities: | | | |
| Repurchase of common stock | (317,344) | (129,977) | (126,729) |
| Proceeds from exercise of stock options | 24,483 | 49,994 | 34,461 |
| Payments for taxes related to net share settlement of equity awards | (17,615) | (27,815) | (20,199) |
| Proceeds from issuance of common stock through employee stock purchase plan | 4,445 | — | — |
| Principal payments under finance lease obligations | — | (90) | (114) |
| Net cash used in financing activities | <u>(306,031)</u> | <u>(107,888)</u> | <u>(112,581)</u> |
| Net increase (decrease) in cash, cash equivalents and restricted cash | 37,891 | 63,196 | (13,427) |
| Cash, cash equivalents and restricted cash at beginning of period | 138,528 | 75,332 | 88,759 |
| Cash, cash equivalents and restricted cash at end of period | <u>\$ 176,419</u> | <u>\$ 138,528</u> | <u>\$ 75,332</u> |
| Supplemental disclosures of cash flow information | | | |
| Cash paid for interest expense | \$ — | \$ — | \$ 9 |
| Cash paid for income taxes, net of refunds | \$ 39,739 | \$ 35,080 | \$ 8,058 |
| Non-cash investing and financing activities | | | |
| Purchases of intangible assets recorded in accrued liabilities and other noncurrent liabilities | \$ 2,110 | \$ 120 | \$ 150 |
| Purchases of property and equipment recorded in accounts payable and accrued liabilities | \$ 470 | \$ 2,086 | \$ 1,054 |

The accompanying notes are an integral part of these Consolidated Financial Statements.

Qualys, Inc.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands)

| | Common Stock | | Additional Paid-In Capital | Accumulated Other Comprehensive Income (Loss) | Retained Earnings (Accumulated Deficit) | Total Stockholders' Equity |
|---|---------------|--------------|----------------------------------|--|--|----------------------------------|
| | Shares | Amount | | | | |
| Balances at December 31, 2019 | 39,146 | \$ 39 | \$ 362,408 | \$ 1,162 | \$ 23,194 | \$ 386,803 |
| Net income | — | — | — | — | 91,572 | 91,572 |
| Other comprehensive loss, net of tax | — | — | — | (1,646) | — | (1,646) |
| Issuance of common stock upon exercise of stock options | 1,130 | 1 | 34,460 | — | — | 34,461 |
| Repurchase of common stock | (1,293) | (1) | (15,530) | — | (111,198) | (126,729) |
| Issuance of common stock upon vesting of restricted stock units | 476 | — | — | — | — | — |
| Taxes related to net share settlement of equity awards | (206) | — | (20,199) | — | — | (20,199) |
| Stock-based compensation | — | — | 40,220 | — | — | 40,220 |
| Balances at December 31, 2020 | 39,253 | 39 | 401,359 | (484) | 3,568 | 404,482 |
| Net income | — | — | — | — | 70,960 | 70,960 |
| Other comprehensive income, net of tax | — | — | — | 1,491 | — | 1,491 |
| Issuance of common stock upon exercise of stock options | 725 | 1 | 49,993 | — | — | 49,994 |
| Repurchase of common stock | (1,148) | (1) | (13,793) | — | (116,183) | (129,977) |
| Issuance of common stock upon vesting of restricted stock units | 530 | — | — | — | — | — |
| Taxes related to net share settlement of equity awards | (248) | — | (27,815) | — | — | (27,815) |
| Stock-based compensation | — | — | 67,579 | — | — | 67,579 |
| Balances at December 31, 2021 | 39,112 | 39 | 477,323 | 1,007 | (41,655) | 436,714 |
| Net income | — | — | — | — | 107,992 | 107,992 |
| Other comprehensive loss, net of tax | — | — | — | (2,954) | — | (2,954) |
| Issuance of common stock upon exercise of stock options | 468 | — | 24,483 | — | — | 24,483 |
| Repurchase of common stock | (2,460) | (2) | (29,558) | — | (287,784) | (317,344) |
| Issuance of common stock upon vesting of restricted stock units | 329 | — | — | — | — | — |
| Taxes related to net share settlement of equity awards | (132) | — | (17,615) | — | — | (17,615) |
| Issuance of common stock through employee stock purchase plan | 45 | — | 4,445 | — | — | 4,445 |
| Stock-based compensation | — | — | 53,408 | — | — | 53,408 |
| Balances at December 31, 2022 | 37,362 | \$ 37 | \$ 512,486 | \$ (1,947) | \$ (221,447) | \$ 289,129 |

The accompanying notes are an integral part of these Consolidated Financial Statements.

Qualys, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1. The Company and Summary of Significant Accounting Policies***Description of Business***

Qualys, Inc. (the “Company”, “we”, “us”, “our”) was incorporated in the state of Delaware on December 30, 1999. The Company is headquartered in Foster City, California and has wholly-owned subsidiaries throughout the world. The Company is a pioneer and leading provider of cloud-based IT, security and compliance solutions that enable organizations to identify security risks to their IT infrastructures, help protect their IT systems and applications from ever-evolving cyber-attacks and achieve compliance with internal policies and external regulations. The Company’s cloud solutions address the growing security and compliance complexities and risks that are amplified by the dissolving boundaries between internal and external IT infrastructures and web environments, the rapid adoption of cloud computing and the proliferation of geographically dispersed IT assets. Organizations can use the Company’s integrated suite of solutions delivered on its Qualys Cloud Platform to cost-effectively obtain a unified view of their security and compliance posture across globally-distributed IT infrastructures.

Basis of Presentation

The accompanying consolidated financial statements and footnotes have been prepared in accordance with U.S. GAAP as well as the instructions to Form 10-K and the rules and regulations of the SEC. Certain prior year amounts have been reclassified to conform with the current year presentation. In the opinion of management, the accompanying consolidated financial statements reflect all adjustments, which include only normal recurring adjustments, necessary for the fair presentation of the Company’s consolidated financial position, results of operations and cash flows for the periods presented. The accompanying consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All intercompany transactions and balances have been eliminated upon consolidation.

Risks and Uncertainties

The uncertainty surrounding macroeconomic factors in the U.S. and globally characterized by the supply chain environment, inflationary pressure, rising interest rates, labor shortages, significant volatility of global markets and geopolitical conflicts could have a material adverse effect on the Company’s long-term business and could lead to further economic disruption and expose the Company to greater risk as its current and potential customers may reduce or eliminate their overall spending on IT security.

Use of Estimates

The preparation of the consolidated financial statements in conformity with U.S. GAAP requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of assets and liabilities at the date of the consolidated financial statements and the reported results of operations during the reporting period. The Company’s management regularly assesses these estimates, which primarily affect revenue recognition, allowance for credit loss, the valuation of goodwill and intangible assets, leases, stock-based compensation and income tax provision. Actual results could differ from those estimates and such differences may be material to the accompanying consolidated financial statements.

Concentration of Credit Risk

The Company invests its cash and cash equivalents with major financial institutions. Cash balances with any one institution at times may be in excess of federally insured limits. Cash equivalents are invested in high-quality investment grade financial instruments and are diversified. The Company has not experienced any losses in such accounts and believes it is not exposed to any significant credit risk.

Credit risk with respect to accounts receivable is dispersed due to the large number of customers. Collateral is not required for accounts receivable. As of December 31, 2022 and 2021, no customer or channel partner accounted for more than 10% of the Company’s revenues and accounts receivable balance.

Cash, Cash Equivalents, Restricted cash and Short-Term and Long-Term Marketable Securities

Cash and cash equivalents include cash held in banks, highly liquid money market funds and commercial paper, all with original maturities of three months or less when acquired. The Company’s short-term and long-term marketable securities consist of fixed-income U.S. and foreign government agency securities, corporate bonds, asset-backed securities and commercial paper. Management determines the appropriate classification of the Company’s investments at the time of purchase and reevaluates such designation at each balance sheet date. The Company classifies its marketable securities as either short-term or long-term based on each instrument’s underlying remaining contractual maturity date.

As of December 31, 2022 the Company had a restricted cash balance of \$2.7 million, of which \$1.5 million is related to cash held in escrow as part of the Blue Hexagon acquisition and \$1.2 million in the form of a letter of credit issued to the landlord of the Company’s California headquarter office lease as security deposit. As of December 31, 2021, the Company has restricted cash balance of \$1.2 million in the form of a letter of credit issued to the landlord of the Company’s California headquarter office lease as security deposit.

Cash equivalents are stated at cost, which approximates fair market value. Short-term and long-term marketable securities are classified as available-for-sale debt securities (AFS debt securities) and are carried at fair value. Unrealized gains and losses in fair value of the AFS debt securities are reported in other comprehensive income (loss). When the AFS debt securities are sold, cost is based on the specific identification method, and the realized gains and losses are included in other income (expense), net in the consolidated statements of operations. AFS debt securities are reviewed quarterly for impairment. An investment is considered impaired when its fair value is below its amortized cost. Declines in fair value from amortized cost for AFS debt securities that the company intends to sell or will more likely than not be required to sell before the expected recovery of the amortized cost basis are charged to other income (expense), net in the period in which the loss occurs. Otherwise, the credit loss component of the impairment is recorded as allowance for credit losses with an offsetting entry charged to other income (expense), net, while the remaining loss is recognized in other comprehensive income (loss).

Accounts Receivable

Accounts receivable are recorded at the invoiced amount and do not bear interest. The allowance for credit losses is determined on a collective basis where similar risk characteristics exist and on an individual basis when we identify significant customers or invoices with collectability issues. The estimate for credit losses considers historical write-offs by aging category, that are adjusted for current conditions and reasonable and supportable forecasts of future losses. Any change in the assumptions used in analyzing credit losses may result in additional allowances being recognized in the period in which the change occurs. When the Company ultimately concludes that a receivable is uncollectible, the balance is written off against the allowance for credit losses. Payments subsequently received on such receivables are recognized in the period received. The allowance for credit losses recognized and write-offs charged against the allowance were not significant for the years ended December 31, 2022 and 2021. The balance of accounts receivable, net of allowance for credit losses was \$121.8 million, \$109.0 million and \$100.2 million as of December 31, 2022, December 31, 2021 and December 31, 2020, respectively.

Non-marketable securities

In 2018, the Company invested \$2.5 million in preferred stock of a privately-held company (the "Investee"). The fair value of the investment is not readily available, and there are no quoted market prices for the investment. The Company elected the measurement alternative to account for the investment at cost less impairment and will measure the investment at fair value when the Company identifies observable price changes. The investment is assessed for impairment annually or whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. No impairment has been incurred related to the investment. The investment is included in other noncurrent assets in the consolidated balance sheets. The Company has not received any dividends from the investment.

In 2019, the Company made an advance payment of \$0.6 million to the Investee for it to perform certain technology development work, which should either be settled in the form of royalty fee charges when the technology materializes and is licensed to the Company or, otherwise, should be repaid to the Company in cash. The advance payment was recorded in other non-current assets in the consolidated balance sheet. During the fourth quarter ended December 31, 2021, the technology has not been developed and the Company decided to no longer pursue the development of the technology or the collection of the advanced amount. Accordingly, the entire amount of the advance payment was written off and recorded in the general and administrative expense during the year ended December 31, 2021.

Property and Equipment, net

Property and equipment are stated at cost less accumulated depreciation and amortization. Depreciation is computed using the straight-line method over the estimated useful lives of the assets, which range from three to five years. Leasehold improvements are amortized on a straight-line basis over the lesser of the estimated useful life of the asset or the remaining lease term.

The Company purchases physical scanner appliances and other computer equipment that are provided to customers on a subscription basis. This equipment is recorded within property and equipment and the depreciation is recorded in cost of revenues over an estimated useful life of three years.

Upon retirement or disposal, the cost of assets and the related accumulated depreciation are removed from the accounts and any resulting gain or loss is reflected in the consolidated statements of operations. Repairs and maintenance that do not extend the life of an asset are expensed as incurred and major improvements are capitalized as property and equipment.

Leases

The Company leases certain offices, computer equipment and its shared cloud platform facilities under finance leases and non-cancelable operating leases. For both operating and finance leases, we recognize a right-of-use asset, which represents our right to use the underlying asset for the lease term, and a lease liability, which represents the present value of our obligation to make payments arising over the lease term. Many of our leases include rental escalation clauses, renewal options and/or termination options that are factored into our determination of lease payments and lease terms when appropriate. The present value of the lease payments is calculated using the incremental borrowing rate of the underlying leases determined at lease commencement. As most of our leases do not provide a readily determinable implicit rate, the Company determines an incremental borrowing rate using a portfolio approach based on the rate of interest that the Company would have to pay to borrow an amount equal to the lease payments on a collateralized basis over a similar term as the leases.

Where the Company is the lessee, the Company elects to account for non-lease components associated with its leases (e.g., common area maintenance costs) and lease components separately for substantially all of its asset classes, except for shared cloud platforms, for which the Company elected to combine lease and non-lease components. For leases with a term of one year or less, the Company has elected not to record the right-of-use asset or liability.

In arrangements where the Company is the lessor, the Company elected to apply the practical expedient to account for lease components (e.g., customer premise equipment) and non-lease components (e.g., service revenue) as combined components as revenue under ASC 606 as service revenues are the predominant components in the arrangements.

Impairment of Long-Lived Assets

The Company evaluates its long-lived assets, which consist of property and equipment, and intangible assets subject to amortization, for indicators of possible impairment when events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. Impairment exists if the carrying amounts of such assets exceed the estimates of future undiscounted cash flows expected to be generated by such assets. Should an impairment exist, the impairment loss would be measured based on the excess carrying value of the asset over the asset's estimated fair value. For the years ended December 31, 2022, 2021 and 2020, there was no impairment of long-lived assets.

Goodwill and Intangible Assets

Goodwill represents the excess of the purchase price over the fair value of the net tangible and identifiable intangible assets acquired in a business combination. Goodwill and indefinite-lived intangible assets are not amortized but tested for impairment at least annually or more frequently if certain

circumstances indicate a possible impairment may exist. The goodwill impairment tests are performed at the reporting unit level. The Company's operations are organized as one reporting unit.

In testing for a potential impairment of goodwill and the indefinite-lived intangible assets, the Company first performs a qualitative assessment to determine if it is more likely than not (a more than 50% likelihood) that the fair value of the reporting unit or the indefinite-lived intangible assets is less than their carrying amount. If the fair value is not considered to be less than the carrying amount, no further evaluation is necessary. Otherwise, the Company will perform a quantitative test. Goodwill impairment is measured as the amount by which the carrying value of the reporting unit or the indefinite-lived intangible assets exceeds their fair value. The Company performed the annual assessments on December 1, 2022 and 2021 and concluded there was no impairment of goodwill or the indefinite-lived intangible assets.

Asset Acquisitions and Business Combinations

The Company applies the provisions of ASC 805, Business Combinations, in accounting for its acquisitions. To determine whether transactions should be accounted for as asset acquisition or business combination, the Company evaluates whether substantially all of the fair value of gross assets included in a transaction is concentrated in a single asset (or a group of similar assets), resulting in an asset acquisition, if not, resulting in a business combination. In an asset acquisition, the cost of acquiring the asset group, including transaction costs, is allocated to the acquired assets or assumed liabilities based on their relative fair values without giving rise to goodwill. In a business combination, the Company recognizes separately from goodwill the assets acquired and the liabilities assumed at their acquisition date fair values. Goodwill as of the acquisition date is measured as the excess of consideration transferred over the net of the acquisition date fair values of the assets acquired and the liabilities assumed. While the Company uses its best estimates and assumptions to accurately value assets acquired and liabilities assumed at the acquisition date as well as any contingent consideration, where applicable, its estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, the Company records adjustments to the assets acquired and liabilities assumed with the corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded to its consolidated statements of operations.

Derivative Financial Instruments

Derivative financial instruments are utilized by the Company to reduce foreign currency exchange risks. The Company uses foreign currency forward contracts, with maturities of 13 months or less, to mitigate the impact of foreign currency fluctuations of certain non-U.S. dollar denominated net asset positions, to date primarily cash, accounts receivable and operating lease liabilities, as well as to manage foreign currency fluctuation risk related to forecasted transactions. Open contracts are recorded within prepaid expenses and other current assets, other noncurrent assets, accrued liabilities or other noncurrent liabilities in the consolidated balance sheets. Gains and losses resulting from currency exchange rate movements on non-designated forward contracts are recognized in other income (expense), net. Any gains or losses from derivatives designated as cash flow hedges are first recorded within accumulated other comprehensive income ("AOCI") and then reclassified into revenue or operating expenses when the hedged item impacts the consolidated statements of operations. Cash flows related to these forward contracts are classified in our consolidated statements of cash flows in the same manner as the underlying hedged transaction within cash flows from operating activities.

Stock-Based Compensation

The Company recognizes the fair value of its stock options, restricted stock units ("RSUs") and stock purchase rights under the employee stock purchase plan (the "ESPP") on a straight-line basis over the requisite service periods. The fair value of each stock option or stock purchase right is estimated on the date of grant using the Black-Scholes-Merton option pricing model and the fair value of each RSU is based on the Company's common stock price on the date of grant. Compensation expenses for performance-based stock options ("PSOs") and performance-based restricted stock units ("PSUs") are recorded based on expected achievement of the performance metrics specified in the grant, which are assessed on a quarterly basis. Forfeitures are estimated on the date of grant and revised if actual or expected forfeiture materially differs from original estimates.

Revenue Recognition

The Company derives revenues from subscriptions that require customers to pay a fee in order to access the Company's cloud solutions. Contract period with customers generally are one year with occasional contracts ranging up to five years. The subscription fee entitles the customer to an unlimited number of scans for a specified number of networked devices or web applications and, if requested by a customer as part of their subscription, a specified number of physical or virtual scanner appliances. The Company's physical and virtual scanner appliances are requested by certain customers as part of their subscriptions in order to scan IT infrastructures within their firewalls and do not function without, and are not sold separately from, subscriptions for the Company's solutions. In some limited cases, the Company also provides certain computer equipment used to extend its Qualys Cloud Platform into its customers' private cloud environment. Customers are required to return physical scanner appliances and computer equipment if they do not renew their subscriptions.

The Company determines revenue recognition through the following steps:

- Identification of the contract, or contracts, with a customer;
- Identification of the performance obligations in the contract;
- Determination of the transaction price
- Allocation of the transaction price to the performance obligations in the contract; and
- Recognition of revenue when, or as, the Company satisfies a performance obligation.

At the inception of a customer contract, the Company makes an assessment as to that customer's ability to pay for the services provided. The Company assesses collectability based on several factors, including credit worthiness of the customer along with past transaction history. In addition, the Company performs periodic evaluations of its customers' financial condition.

Most of the Company's revenue contracts are subscription based and contain a single performance obligation. The subscription contracts typically do not offer to the customers any future rights that would constitute material rights. Contract prices are generally composed of fixed consideration for a specific period of time as the Company in general does not offer refunds, volume rebates, customer loyalty programs or other forms of customer incentive payments. In limited situations, contract prices are contingent on future events, such as actual usage during the contract terms, which are accounted for as variable consideration and estimated based on the most likely amount of consideration that the Company is expected to be entitled to. Estimates are included in the contract price to the extent that it is considered probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. Such estimates are made at contract inception and updated periodically when additional information becomes available. A cumulative catch-up adjustment is made when there is a change in the estimate of variable consideration.

As the Company's cloud-based subscription services are delivered to customers electronically and over time, revenue is generally recognized ratably over the contract terms. When physical equipment is provided to the customers as part of the subscription service contract, the Company applies the practical expedient allowed under ASC 842 Leases to combine lease and nonlease components as a combined component to be accounted for under ASC 606, as the Company determined that the software subscription is the predominant component of the combined components. Therefore, the Company recognizes revenue for the physical equipment ratably over the related subscription period.

Contract modifications happen when there is an upsell, where the customers subsequently enter into contract with the Company to purchase additional product offerings or additional scans for additional devices. Contract modifications related to upsells are accounted for prospectively.

Deferred revenues consist of customer contracts billed or cash received that will be recognized in the future under subscriptions existing at the balance sheet date. The current portion of deferred revenues represents amounts that are expected to be recognized within one year of the balance sheet date.

Costs of shipping and handling charges incurred by the Company associated with physical scanner appliances and other computer equipment are included in cost of revenues. Sales taxes and other taxes collected from customers to be remitted to government authorities are excluded from revenues.

Incremental direct costs of obtaining a contract, which consist of sales commissions primarily for new business and upsells, are deferred and amortized over the estimated life of the customer relationship if renewals are expected and the renewal commission is not commensurate with the initial commission. The Company elected the practical expedient to expense commissions on renewals where the specific anticipated contract term amortization period is one year or less. The Company amortizes the capitalized commission cost as a selling expense on a straight-line basis over a period of five years. The Company classifies deferred commissions as current or noncurrent based on the timing of when it expects to recognize the expense. The current and noncurrent portions of deferred commissions are included in prepaid expenses and other current assets and other noncurrent assets, respectively, in its consolidated balance sheets.

Advertising Expenses

Advertising costs are expensed as incurred and are included in sales and marketing expense in the consolidated statements of operations. The Company incurred advertising costs of \$3.3 million, \$2.1 million and \$1.6 million for the years ended December 31, 2022, 2021 and 2020, respectively.

Income Taxes

The Company provides for the effect of income taxes in its consolidated financial statements using the asset and liability method which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the consolidated financial statements. Under this method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, net operating loss carryovers, and tax credit carry forwards. The Company regularly reviews its deferred tax assets for recoverability and establishes a valuation allowance if it is more likely than not that some portion or all of the deferred tax assets will not be realized. To make this assessment, the Company takes into account predictions of the amount and category of taxable income from various sources and all available positive and negative evidence about these possible sources of taxable income. The weight given to the potential effect of negative and positive evidence is commensurate with the extent to which the strength of the evidence can be objectively verified. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the period that includes the enactment date.

Income tax expense or benefit is recognized for the amount of taxes payable or refundable for the current year and for deferred tax assets and liabilities for the tax consequences of events that have been recognized in an entity's financial statements or tax returns. The Company must make significant assumptions, judgments and estimates to determine its current income tax provision (benefit), its deferred tax assets and liabilities, and any valuation allowance to be recorded against its deferred tax assets. The Company's estimates and assumptions may differ from the actual results as reflected on its income tax returns and will record the required adjustments when they are identified or resolved.

The Company applies a two-step approach to determining the financial statement recognition and measurement of uncertain tax positions. The Company only recognizes an income tax expense or benefit with respect to uncertain tax positions in its financial statements that the Company judges is more likely than not to be sustained solely on its technical merits in a tax audit, including resolution of any related appeals or litigation processes. To make this judgment, the Company must interpret complex and sometimes ambiguous tax laws, regulations and administrative practices. If an income tax position meets the more likely than not recognition threshold, then the Company must measure the amount of the tax benefit to be recognized by determining the largest amount of tax benefit that has a greater than a 50% likelihood of being realized upon effective settlement with a taxing authority that has full knowledge of all of the relevant facts. It is inherently difficult and subjective to estimate such amounts, as this requires the Company to determine the probability of various possible settlement outcomes. To determine if a tax position is effectively settled after a tax examination has been completed, the Company must also estimate the likelihood that another taxing authority could review the respective tax position. The Company must also determine when it is reasonably possible that the amount of unrecognized tax benefits will significantly increase or decrease in the 12 months after each fiscal year-end. These judgments are difficult because a taxing authority may change its behavior as a result of the Company's disclosures in its financial statements. The Company must reevaluate its income tax positions on a quarterly basis to consider factors such as changes in facts or circumstances, changes in tax law, effectively settled issues under audit, and new audit activity. Such a change in recognition or measurement would result in recognition of a tax benefit or an additional charge to the tax provision. The Company's policy is to recognize interest and penalties related to unrecognized tax benefits as a component of the provision for income taxes.

Comprehensive Income (Loss)

Other comprehensive income (loss) consists of unrealized gains (losses) on marketable securities, net of tax, and derivative financial instruments designated as cash flow hedges which are not included in the Company's net income. Total comprehensive income includes net income and other comprehensive income (loss) and is included in the consolidated statements of comprehensive income.

Foreign Currency Transactions

The Company's operations are conducted in various countries around the world and the financial statements of its foreign subsidiaries are reported in the U.S. dollar as their respective functional currency. Monetary assets and liabilities denominated in foreign currencies have been re-measured into U.S. dollars using the exchange rates in effect at the balance sheet date, and income and expenses are re-measured at average exchange rates during the period. Foreign currency re-measurement gains and losses and foreign currency transaction gains and losses are recognized in other income (expense), net.

Net Income Per Share

Basic net income per share is computed by dividing net income by the weighted-average number of shares outstanding during the period. Diluted net income per share is computed by dividing net income by the weighted-average number of shares outstanding plus potentially dilutive shares outstanding during the period. The potentially dilutive shares are computed by applying the treasury stock method to the Company's stock options, RSUs and the stock purchase rights under the ESPP. Any potential shares that would be anti-dilutive are excluded from the computation of diluted net income per share.

Recently Adopted Accounting Pronouncements

None.

Recently Issued Accounting Pronouncements Not Yet Adopted

The Company does not believe any other new accounting pronouncements issued by the FASB that have not become effective will have a material impact on its consolidated financial statements.

NOTE 2. Fair Value of Financial Instruments

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. For certain of the Company's financial instruments, including certain cash equivalents, accounts receivable, accounts payable and accrued liabilities, the carrying amounts approximate their fair values due to the relatively short maturity of these balances.

The Company measures and reports certain cash equivalents, marketable securities, derivative foreign currency forward contracts at fair value in accordance with the provisions of the authoritative accounting guidance that addresses fair value measurements. This guidance establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. The hierarchy is broken down into three levels based on the reliability of inputs as follows:

Level 1-Valuations based on quoted prices in active markets for identical assets or liabilities.

Level 2-Valuations based on other than quoted prices in active markets for identical assets and liabilities, including quoted prices for identical assets or liabilities in less active or inactive markets, quoted prices for similar assets or liabilities in active markets, or inputs other than quoted prices that are observable for substantially the full term of the assets or liabilities.

Level 3-Valuations based on inputs that are generally unobservable and typically reflect management's estimates of assumptions that market participants would use in pricing the asset or liability.

The Company's financial instruments consist of assets and liabilities measured using Level 1 and 2 inputs. Level 1 assets include a highly liquid money market fund, which is valued using unadjusted quoted prices that are available in an active market for an identical asset. Level 2 assets include fixed-income U.S. Treasury and government agency securities, commercial paper, corporate bonds, asset-backed securities, foreign government securities and derivative financial instruments consisting of foreign currency forward contracts. The securities, bonds and commercial paper are valued using prices from independent pricing services based on quoted prices of identical instruments in less active or inactive markets, quoted prices of similar instruments in active markets, or industry models using data inputs such as interest rates and prices that can be directly observed or corroborated in active markets. The foreign currency forward contracts are valued using observable inputs, such as quotations on forward foreign exchange points and foreign interest rates.

The following table sets forth by level within the fair value hierarchy the fair value of the Company's financial assets and liabilities measured at fair value on a recurring basis:

| | December 31, 2022 | | |
|---------------------------------------|--------------------------|-------------------|-------------------|
| | Level 1 | Level 2 | Fair Value |
| | (in thousands) | | |
| Money market funds | \$ 82,701 | \$ — | \$ 82,701 |
| U.S. Treasury and government agencies | — | 156,662 | 156,662 |
| Foreign government | — | 1,006 | 1,006 |
| Corporate bonds | — | 63,910 | 63,910 |
| Asset-backed securities | — | 15,027 | 15,027 |
| Foreign currency forward contracts | — | 1,493 | 1,493 |
| Total assets | \$ 82,701 | \$ 238,098 | \$ 320,799 |
| Foreign currency forward contracts | \$ — | \$ 4,679 | \$ 4,679 |
| Total liabilities | \$ — | \$ 4,679 | \$ 4,679 |

| | December 31, 2021 | | |
|---------------------------------------|--------------------------|-------------------|-------------------|
| | Level 1 | Level 2 | Fair Value |
| | (in thousands) | | |
| Money market funds | \$ 75,258 | \$ — | \$ 75,258 |
| Commercial paper | — | 18,896 | 18,896 |
| U.S. Treasury and government agencies | — | 254,527 | 254,527 |
| Foreign government | — | 1,019 | 1,019 |
| Corporate bonds | — | 86,703 | 86,703 |
| Asset-backed securities | — | 18,863 | 18,863 |
| Foreign currency forward contracts | — | 3,336 | 3,336 |
| Total assets | \$ 75,258 | \$ 383,344 | \$ 458,602 |
| Foreign currency forward contracts | \$ — | \$ 388 | \$ 388 |
| Total liabilities | \$ — | \$ 388 | \$ 388 |

There were no transfers between Level 1, Level 2 and Level 3 categories during the years ended December 31, 2022 and 2021.

Cash equivalent and investments

The Company's cash equivalents and marketable securities consist of the following:

| | December 31, 2022 | | | |
|--|-------------------|---------------------|----------------------|-------------------|
| | Amortized Cost | Unrealized Gains | Unrealized Losses | Fair Value |
| | (in thousands) | | | |
| Cash equivalents: (1) | | | | |
| Money market funds | \$ 82,701 | \$ — | \$ — | \$ 82,701 |
| U.S. Treasury and government agencies | 29,787 | 4 | — | 29,791 |
| Total | <u>112,488</u> | <u>4</u> | <u>—</u> | <u>112,492</u> |
| Short-term marketable securities: | | | | |
| Corporate bonds | 36,908 | 3 | (337) | 36,574 |
| Asset-backed securities | 726 | — | (2) | 724 |
| U.S. Treasury and government agencies | 110,225 | — | (921) | 109,304 |
| Foreign government | 1,008 | — | (2) | 1,006 |
| Total | <u>148,867</u> | <u>3</u> | <u>(1,262)</u> | <u>147,608</u> |
| Long-term marketable securities: | | | | |
| Corporate bonds | 28,146 | — | (810) | 27,336 |
| Asset-backed securities | 14,435 | — | (132) | 14,303 |
| U.S. Treasury and government agencies | 18,076 | — | (509) | 17,567 |
| Total | <u>60,657</u> | <u>—</u> | <u>(1,451)</u> | <u>59,206</u> |
| Total | <u>\$ 322,012</u> | <u>\$ 7</u> | <u>\$ (2,713)</u> | <u>\$ 319,306</u> |

(1) Excludes cash of \$61.2 million.

| | December 31, 2021 | | | |
|--|-------------------|---------------------|----------------------|-------------------|
| | Amortized Cost | Unrealized Gains | Unrealized Losses | Fair Value |
| | (in thousands) | | | |
| Cash equivalents: (1) | | | | |
| Money market funds | \$ 75,258 | \$ — | \$ — | \$ 75,258 |
| Commercial paper | 850 | — | — | 850 |
| Total | <u>76,108</u> | <u>—</u> | <u>—</u> | <u>76,108</u> |
| Short-term marketable securities: (2) | | | | |
| Commercial paper | 18,046 | — | — | 18,046 |
| Corporate bonds | 28,869 | 101 | (7) | 28,963 |
| Asset-backed securities | 3,952 | — | — | 3,952 |
| U.S. Treasury and government agencies | 217,160 | 2 | (163) | 216,999 |
| Total | <u>268,027</u> | <u>103</u> | <u>(170)</u> | <u>267,960</u> |
| Long-term marketable securities: | | | | |
| Corporate bonds | 57,762 | 160 | (182) | 57,740 |
| Asset-backed securities | 14,941 | 6 | (36) | 14,911 |
| U.S. Treasury and government agencies | 37,664 | — | (136) | 37,528 |
| Foreign government | 1,007 | 12 | — | 1,019 |
| Total | <u>111,374</u> | <u>178</u> | <u>(354)</u> | <u>111,198</u> |
| Total | <u>\$ 455,509</u> | <u>\$ 281</u> | <u>\$ (524)</u> | <u>\$ 455,266</u> |

(1) Excludes cash of \$61.2 million.

(2) Revised for correction of classification of amounts and security types disclosed in Note 2 to the consolidated financial statements in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

The following table summarizes the gross unrealized losses and fair value of the Company's marketable securities that were in an unrealized loss position aggregated by length of time:

| | December 31, 2022 | | | | | |
|---------------------------------------|---------------------|-------------------------------|---------------------|-------------------------------|-------------------|-------------------------------|
| | Less than 12 months | | 12 months or longer | | Total | |
| | Fair value | Gross unrealized losses | Fair value | Gross unrealized losses | Fair value | Gross unrealized losses |
| | (in thousands) | | | | | |
| Foreign government agencies | \$ 998 | \$ (2) | \$ - | \$ - | \$ 998 | \$ (2) |
| Asset-backed securities | 13,365 | (124) | 1,652 | (10) | 15,017 | (134) |
| Corporate bonds | 33,800 | (389) | 26,326 | (758) | 60,126 | (1,147) |
| U.S. Treasury and government agencies | 89,802 | (1,175) | 36,833 | (255) | 126,635 | (1,430) |
| Total | <u>\$ 137,965</u> | <u>\$ (1,690)</u> | <u>\$ 64,811</u> | <u>\$ (1,023)</u> | <u>\$ 202,776</u> | <u>\$ (2,713)</u> |

| | December 31, 2021 | | | | | |
|-------------------------|---------------------|-------------------------------|---------------------|-------------------------------|------------|-------------------------------|
| | Less than 12 months | | 12 months or longer | | Total | |
| | Fair value | Gross unrealized losses | Fair value | Gross unrealized losses | Fair value | Gross unrealized losses |
| | (in thousands) | | | | | |
| Asset-backed securities | \$ 15,867 | \$ (36) | \$ - | \$ - | \$ 15,867 | \$ (36) |

| | | | | | | |
|---------------------------------------|-------------------|-----------------|-------------|-------------|-------------------|-----------------|
| Corporate bonds | 54,143 | (189) | - | - | 54,143 | (189) |
| U.S. Treasury and government agencies | 241,816 | (299) | - | - | 241,816 | (299) |
| Total | <u>\$ 311,826</u> | <u>\$ (524)</u> | <u>\$ -</u> | <u>\$ -</u> | <u>\$ 311,826</u> | <u>\$ (524)</u> |

The Company had the ability and intent to hold all marketable securities that were in an unrealized loss position until recovery of the amortized cost basis. The Company considered the extent to which fair value was less than amortized cost basis and conditions related to security's industry and geography and changes to the ratings, if any, and concluded the decline in fair value compared to carrying value was not related to credit loss.

The following summarizes the fair value of marketable securities by contractual maturity:

| | December 31, 2022 | |
|--------------------------------------|-------------------|-------------------|
| | Amortized Cost | Fair Value |
| | (in thousands) | |
| Due within One Year | \$ 260,629 | \$ 259,376 |
| Due after One Year through Two Years | 43,528 | 42,272 |
| Mature over Two Years | 2,694 | 2,631 |
| Asset-backed securities | 15,161 | 15,027 |
| Total | \$ 322,012 | \$ 319,306 |

Derivative Financial Instruments

Designated cash flow hedges

The Company enters into foreign currency forward contracts to reduce the risk of variability in future cash flow due to foreign currency exchange rate fluctuation from certain forecasted subscription revenue orders billed in GBP and Euro and operation expenses incurred in INR, which are designated as cash flow hedges. Hedge effectiveness is assessed at inception and at each reporting period utilizing regression analysis. Unrealized foreign exchange gains or losses related to those designated cash flow hedge contracts are recorded in Accumulated other comprehensive income ("AOCI") and will be reclassified into revenues or operating expenses, respectively, in the same periods when the hedged transactions are recognized in earnings.

As of December 31, 2022, a net amount of unrealized gains of \$3.2 million before tax on the foreign currency forward contracts for GBP and Euro reported in AOCI is expected to be reclassified into revenue within the next 12 months. As of December 31, 2022, a net amount of unrealized loss of \$1.6 million before tax on the foreign currency forward contracts for INR reported in AOCI is expected to be reclassified into operating expenses within the next 12 months.

Non-designated forward contracts

The Company also uses foreign currency forward contracts to hedge certain foreign currency denominated assets or liabilities, which are not designated as cash flow hedges. Unrealized foreign exchange gain or losses related to the non-designated forward contracts are recorded in other income (expenses), net and offset the foreign exchange gain or loss on the underlying net monetary assets or liabilities.

The following summarizes the fair value of derivative financial instruments as of December 31, 2022 and 2021:

| | December 31, | |
|--|-------------------|-----------------|
| | 2022 | 2021 |
| | (in thousands) | |
| Assets | | |
| Foreign currency forward contracts designated as cash flow hedge | \$ 1,041 | \$ 1,737 |
| Foreign currency forward contracts not designated as hedging instruments | 452 | 1,599 |
| Total | \$ 1,493 | \$ 3,336 |
| Liabilities | | |
| Foreign currency forward contracts designated as cash flow hedge | \$ (2,634) | \$ (181) |
| Foreign currency forward contracts not designated as hedging instruments | (2,045) | (207) |
| Total | \$ (4,679) | \$ (388) |

Derivative transactions are measured in terms of the notional amount. However, this amount is not recorded on the balance sheet and is not, when viewed in isolation, a meaningful measure of the risk profile of the derivative instruments. The notional amount is generally not exchanged, and is used only as the underlying basis on which the value of foreign currency exchange payments under these contracts is determined. The following summarizes the notional amounts of our outstanding derivatives:

| | December 31, | |
|--|------------------|------------------|
| | 2022 | 2021 |
| | (in thousands) | |
| Foreign currency forward contracts designated as cash flow hedge | \$ 10,623 | \$ 9,486 |
| Foreign currency forward contracts not designated as hedging instruments | 69,972 | 56,114 |
| Total | \$ 80,595 | \$ 65,600 |

The Company presents its derivative assets and derivative liabilities at gross fair values in the consolidated balance sheets. However, under the master netting agreements with the respective counterparties of the foreign exchange contracts, subject to applicable requirements, the Company is allowed to net settle transactions of the same currency with a single net amount payable by one party to the other. The potential offset to both assets and liabilities under the right of set-off associated with the Company's foreign currency exchange contracts are immaterial as of December 31, 2022 and 2021. The derivatives held by the Company are not subject to any credit contingent features negotiated with its counterparties. The Company is not required to pledge nor is entitled to receive cash collateral related to the above contracts. The counterparties to these derivatives are large, global financial institutions that the Company believes are creditworthy, and therefore, it does not consider the risk of counterparty nonperformance to be material.

The following summarizes the gains (losses) recognized from forward contracts and other foreign currency transactions in other income (expense), net in the consolidated statements of operations:

| | Year Ended December 31, | | |
|--|-------------------------|----------|------------|
| | 2022 | 2021 | 2020 |
| | (in thousands) | | |
| Net gains (losses) from non-designated forward contracts | \$ 5,093 | \$ 2,452 | \$ (1,634) |
| Other foreign currency transactions gains (losses) | (6,864) | (2,749) | 1,894 |
| Total foreign exchange gains (losses), net | (1,771) | (297) | 260 |
| Other expenses | (267) | (276) | (253) |
| Other income (expense), net | \$ (2,038) | \$ (573) | \$ 7 |

NOTE 3. Accumulated Other Comprehensive Income (Loss)

The components and changes in accumulated other comprehensive income (loss) were as follows:

| | Available-for-sale debt securities | Cash flow hedges | Total |
|---|---------------------------------------|------------------|-------------------|
| | (in thousands) | | |
| Balances at December 31, 2019 | \$ 822 | \$ 340 | \$ 1,162 |
| Change in unrealized gains (losses) during the period | 549 | (2,099) | (1,550) |
| Net gains reclassified into income during the period | (25) | (564) | (589) |
| Income tax benefit (provision) | (122) | 615 | 493 |
| Net change during the period | 402 | (2,048) | (1,646) |
| Balances at December 31, 2020 | 1,224 | (1,708) | (484) |
| Change in unrealized gains (losses) during the period | (1,854) | 2,837 | 983 |
| Net losses reclassified into income during the period | 22 | 933 | 955 |
| Income tax benefit (provision) | 423 | (870) | (447) |
| Net change during the period | (1,409) | 2,900 | 1,491 |
| Balances at December 31, 2021 | (185) | 1,192 | 1,007 |
| Change in unrealized gains (losses) during the period | (2,462) | 581 | (1,881) |
| Net gains reclassified into income during the period | — | (1,147) | (1,147) |
| Income tax benefit (provision) | (58) | 132 | 74 |
| Net change during the period | (2,520) | (434) | (2,954) |
| Balances at December 31, 2022 | \$ (2,705) | \$ 758 | \$ (1,947) |

The effects on income before income taxes of amounts reclassified from AOCI to the consolidated statements of operations were as follows:

| | Year Ended December 31, | | |
|---|-------------------------|------------|--------|
| | 2022 | 2021 | 2020 |
| | (in thousands) | | |
| Reclassification of AOCI - Available-for-sale debt securities | | | |
| Other income (expense), net | \$ — | \$ (22) | \$ 25 |
| Reclassification of AOCI - Cash flow hedges | | | |
| Revenues | \$ 1,897 | \$ (1,667) | \$ 960 |
| Cost of revenues | (169) | 149 | (76) |
| Research and development | (478) | 492 | (264) |
| Sales and marketing | (30) | 28 | (20) |
| General and administrative | (73) | 65 | (36) |
| Total | \$ 1,147 | \$ (933) | \$ 564 |

NOTE 4. Property and Equipment, Net

Property and equipment, net, which includes assets under finance leases, consists of the following:

| | December 31, | |
|---|-----------------------|------------------|
| | 2022 | 2021 |
| | (in thousands) | |
| Computer equipment | \$ 173,832 | \$ 161,809 |
| Computer software | 25,808 | 25,807 |
| Leasehold improvements | 21,009 | 21,092 |
| Scanner appliances | 15,696 | 16,510 |
| Furniture, fixtures and equipment | 6,524 | 6,479 |
| Total property and equipment | 242,869 | 231,697 |
| Less: accumulated depreciation and amortization | (195,441) | (169,843) |
| Property and equipment, net | <u>\$ 47,428</u> | <u>\$ 61,854</u> |

As of December 31, 2022 and 2021, physical scanner appliances and other computer equipment that are or will be subject to leases by customers had a net carrying value of \$6.7 million and \$5.3 million, respectively, including assets that had not been placed in service of \$4.0 million and \$1.3 million, respectively. Depreciation and amortization expenses relating to property and equipment were \$28.2 million, \$28.5 million and \$26.1 million for the years ended December 31, 2022, 2021 and 2020, respectively. Assets under finance leases were acquired upon completion of lease term and placed within computer equipment as of December 31, 2022.

NOTE 5. Revenue from Contracts with Customers

The Company records deferred revenue when cash payments are received or due in advance of its performance obligations offset by revenue recognized in the period. Revenues of \$254.9 million and \$211.0 million were recognized during the years ended December 31, 2022 and December 31, 2021, respectively, which amounts were included in the deferred revenue balances of \$290.6 million and \$244.0 million as of December 31, 2021 and December 31, 2020, respectively.

The Company's payment terms vary by the type and location of its customers. The term between invoicing and when payment is due is not significant. In certain circumstances, based on the credit quality of the customer, the Company requires payment before the products or services are delivered to the customer.

The following table sets forth the expected revenue from all remaining performance obligations as of December 31, 2022:

| | (in thousands) |
|---------------------|-----------------------|
| 2023 | \$ 158,607 |
| 2024 | 82,902 |
| 2025 | 27,874 |
| 2026 | 1,994 |
| 2027 | 692 |
| 2028 and thereafter | 62 |
| Total | <u>\$ 272,131</u> |

Revenues allocated to remaining performance obligations represents the transaction price of noncancelable orders for which service has not been performed, which include deferred revenue and the amounts that will be invoiced and recognized as revenues in future periods from open contracts and excludes unexercised renewals. The Company applied the short-term contract exemption to exclude the remaining performance obligations that are part of a contract that has an original expected duration of one year or less.

From time to time, the Company enters into contracts with customers that extend beyond one year, with certain of its customers electing to pay for more than one year of services upon contract execution. The Company concluded that these contracts did not contain a financing component.

Revenues by sales channel are as follows:

| | Year Ended December 31, | | |
|---------|--------------------------------|-------------------|-------------------|
| | 2022 | 2021 | 2020 |
| | (in thousands) | | |
| Direct | \$ 285,382 | \$ 243,389 | \$ 211,897 |
| Partner | 204,341 | 167,783 | 151,066 |
| Total | <u>\$ 489,723</u> | <u>\$ 411,172</u> | <u>\$ 362,963</u> |

The Company utilizes partners to enable and accelerate the adoption of its cloud platform by increasing its distribution capabilities and market awareness of its cloud platform as well as by targeting geographic regions outside the reach of its direct sales force. The Company's channel partners maintain relationships with their customers throughout the territories in which they operate and provide their customers with services and third-party solutions to help meet those customers' evolving security and compliance requirements. As such, these partners may offer the Company's IT security and compliance solutions in conjunction with one or more of their own products or services and act as a conduit through which the Company can connect with these prospective customers to offer its solutions. For sales involving a channel partner, the channel partner engages with the prospective customer directly and involves the Company's sales team as needed to assist in developing and closing an order. When a channel partner secures a sale, the Company sells the associated subscription to the channel partner who in turn resells the subscription to the customer. Sales to channel partners are made at a discount and revenues are recorded at this discounted price over the subscription terms. The Company does not have any influence or specific knowledge of its partners'

selling terms with their customers. See Note 13, "Segment Information and Information about Geographic Area" for disaggregation of revenue by geographic area.

Deferred costs to obtain contracts are as follows:

| | December 31, | |
|------------|-----------------------|-------------|
| | 2022 | 2021 |
| | (in thousands) | |
| Current | \$ 5,018 | \$ 4,223 |
| Noncurrent | \$ 10,090 | \$ 8,391 |

For the years ended December 31, 2022, 2021 and 2020, the Company recognized \$5.0 million, \$4.0 million and \$3.0 million, respectively, of amortization expense relating to deferred costs to obtain contracts in sales and marketing expense in the consolidated statements of operations. During the same periods, there was no impairment loss related to the deferred costs to obtain contracts.

NOTE 6. Acquisitions

On October 4, 2022, the Company acquired certain assets of Blue Hexagon Inc., a privately held company incorporated in Delaware, for \$10 million in cash, of which \$8.5 million was paid on the acquisition date and the remaining \$1.5 million will be due eighteen months from the acquisition date, subject to potential adjustment from possible indemnity claims. In addition, the Company assumed \$1.4 million deferred revenue. Blue Hexagon's AI/ML-driven network detection enables the Company to leverage its cloud platform with AI/machine learning to uncover behavior patterns including active vulnerability exploitation, identification of advanced network threats, and adaptive risk mitigation across all assets and application. We accounted for this transaction as an asset acquisition, as substantially all of the fair value is concentrated in developed technology acquired. The Company incurred \$0.6 million transaction costs which is included as the cost of acquiring the intangible assets. The Company recognized intangible assets of \$11.5 million for developed technology and \$0.4 million for assembled workforce, which will be amortized over five years and two years, respectively.

On August 19, 2021, the Company acquired certain developed technology intangible assets of TotalCloud, a privately held company incorporated in India, for a total cash consideration of \$1.2 million, of which \$1.1 million was paid on the acquisition date and the remaining \$0.1 million was deferred and paid in August 2022. TotalCloud's technology strengthens the Company's cloud security solution by allowing customers to build user-defined workflows for custom policies and execute them on-demand for simplified security and compliance. The acquired intangible assets will be amortized over five years.

On July 24, 2020, the Company acquired certain intangible assets of Spell Security, a privately held company incorporated in India, for a total cash consideration of \$1.5 million, of which \$1.3 million was paid on the acquisition date and the remaining \$0.2 million was deferred and paid in October 2021. Spell Security's technology expands the Company's endpoint behavior detection, threat hunting, malware research and multi-layered response capabilities for its EDR application. The Company recognized intangible assets of \$1.0 million for developed technology and \$0.5 million for non-compete agreements, which will be amortized over four and two years, respectively.

There were no changes in the carrying amount of goodwill for the years ended December 31, 2022 and 2021.

NOTE 7. Intangible Assets, Net

Intangible assets consist primarily of developed technology and patent licenses acquired from business or asset acquisitions. Acquired intangibles are amortized on a straight-line basis over the respective estimated useful lives of the assets.

The carrying values of intangible assets are as follows:

| (in thousands) | Weighted Average Life (Years) | Weighted Average Remaining Life (Years) | December 31, 2022 | | |
|---|-------------------------------------|--|-------------------|-----------------------------|-------------------|
| | | | Cost | Accumulated Amortization | Net Book Value |
| Developed technology | 4.6 | 1.4 | \$ 40,141 | \$ (27,860) | \$ 12,281 |
| Patent licenses | 14.0 | 1.7 | 1,387 | (1,221) | 166 |
| Non-compete agreements | 2.0 | — | 500 | (500) | — |
| Assembled workforce | 2.0 | 1.7 | 359 | (45) | 314 |
| Total intangibles subject to amortization | | | <u>\$ 42,387</u> | <u>\$ (29,626)</u> | <u>\$ 12,761</u> |
| Intangible assets not subject to amortization | | | | | 40 |
| Total intangible assets, net | | | | | <u>\$ 12,801</u> |

| (in thousands) | Weighted Average Life (Years) | Weighted Average Remaining Life (Years) | December 31, 2021 | | |
|---|-------------------------------------|--|-------------------|-----------------------------|-------------------|
| | | | Cost | Accumulated Amortization | Net Book Value |
| Developed technology | 4.5 | 0.9 | \$ 28,556 | \$ (22,463) | \$ 6,093 |
| Patent licenses | 14.0 | 2.7 | 1,387 | (1,121) | 266 |
| Non-compete agreements | 2.0 | 0.6 | 500 | (354) | 146 |
| Total intangibles subject to amortization | | | <u>\$ 30,443</u> | <u>\$ (23,938)</u> | <u>6,505</u> |
| Intangible assets not subject to amortization | | | | | 40 |
| Total intangible assets, net | | | | | <u>\$ 6,545</u> |

Intangible assets amortization expenses were \$5.7 million, \$6.7 million and \$6.3 million for the years ended December 31, 2022, 2021 and 2020, respectively, which were recorded in the consolidated statements of operations.

As of December 31, 2022, the Company expects amortization expense in future periods to be as follows:

| | (in thousands) |
|--|------------------|
| 2023 | \$ 3,085 |
| 2024 | 2,904 |
| 2025 | 2,557 |
| 2026 | 2,477 |
| 2027 | 1,738 |
| Total expected future amortization expense | <u>\$ 12,761</u> |

NOTE 8. Leases

The Company leases certain offices, computer equipment and its shared cloud platform facilities under non-cancelable operating leases for varying periods through 2028. While under the Company's lease agreements the Company has options to extend its certain leases, the Company has not included renewal options in determining the lease terms for calculating its lease liabilities, as these options are not reasonably certain of being exercised. Lease expense was \$14.9 million, \$16.8 million and \$16.7 million for the years ended December 31, 2022, 2021 and 2020, respectively.

Supplemental cash flow information related to operating leases was as follows:

| | Year Ended December 31, | | |
|--|--------------------------------|-------------|-------------|
| | 2022 | 2021 | 2020 |
| | (in thousands) | | |
| Cash payments included in the measurement of lease liabilities | \$ 15,751 | \$ 14,646 | \$ 13,403 |
| Lease liabilities arising from obtaining right-of-use assets | \$ 8,669 | \$ 4,110 | \$ 15,837 |

The weighted average remaining lease term and the weighted average discount rate of the Company's operating leases were as follows:

| | December 31, | |
|---|---------------------|-------------|
| | 2022 | 2021 |
| Weighted average remaining lease term (years) | 3.7 | 4.5 |
| Weighted average discount rate | 5.2% | 4.8% |

Maturities of the Company's operating lease liabilities as of December 31, 2022 are as follows:

| | (in thousands) |
|---|-----------------------|
| 2023 | \$ 14,940 |
| 2024 | 13,460 |
| 2025 | 7,715 |
| 2026 | 4,498 |
| 2027 | 4,353 |
| 2028 and thereafter | 1,465 |
| Total minimum lease payments | 46,431 |
| Less: interest | (4,250) |
| Present value of net minimum lease payments | 42,181 |
| Less: lease liabilities, current | (13,060) |
| Lease liabilities, noncurrent | \$ 29,121 |

NOTE 9. Commitment and Contingencies***Purchase Obligation***

The Company has entered into agreements to purchase goods and services in the ordinary course of business. As of December 31, 2022, these remaining purchase commitments for future periods are as follows:

| | (in thousands) |
|----------------------------|-----------------------|
| 2023 | \$ 12,862 |
| 2024 | 13,261 |
| 2025 | 12,597 |
| 2026 | 11,591 |
| 2027 | 14,091 |
| Total purchase commitments | <u>\$ 64,402</u> |

Indemnifications

The Company from time to time enters into certain types of contracts that contingently require it to indemnify various parties against claims from third parties. These contracts primarily relate to (i) the Company's bylaws, under which it must indemnify directors and executive officers, and may indemnify other officers and employees, for liabilities arising out of their relationship, (ii) contracts under which the Company must indemnify directors and certain officers for liabilities arising out of their relationship, and (iii) contracts under which the Company may be required to indemnify customers or resellers from certain liabilities arising from potential infringement of intellectual property rights, as well as potential damages caused by limited product defects. To date, the Company has not incurred and has not recorded any liability in connection with such indemnifications.

The Company maintains director and officer insurance, which may cover certain liabilities arising from its obligation to indemnify its directors.

Legal Proceedings

From time to time the Company may become involved in legal proceedings or be subject to claims arising in the ordinary course of our business. The Company records a provision for a liability when it is both probable that a liability has been incurred and the amount can be reasonably estimated. Legal expenses related to such matters are expensed as incurred. The Company provides disclosure if it is reasonably possible that a loss has been incurred and a range of loss or possible loss can be reasonably estimated. Significant judgment is required to determine both probability and the estimated amount. The Company reviews these provisions at least quarterly and adjust these provisions to reflect the impact of negotiations, settlements, rulings, advice of legal counsel, and updated information.

As of December 31, 2022, the Company had accruals of \$1.5 million in accrued liabilities for a matter, we believe, that has losses that are probable and can be reasonably estimated. However, litigation is inherently unpredictable and is subject to significant uncertainties, some of which are beyond the Company's control. Should any of these estimates and assumptions change or prove to have been incorrect, the Company could incur significant charges related to legal matters which could have a material impact on its results of operations, financial position and cash flows.

NOTE 10. Stockholders' Equity and Stock-based Compensation***Preferred Stock***

Effective October 3, 2012, the Company is authorized to issue 20.0 million shares of undesignated preferred stock with a par value of \$0.001 per share. Each series of preferred stock will have such rights and preferences including dividend rights, dividend rate, conversion rights, voting rights, rights and terms of redemption (including sinking fund provisions), redemption price, and liquidation preferences as determined by the board of directors. As of December 31, 2022, and 2021, there were no issued or outstanding shares of preferred stock.

Common Stock***Equity Incentive Plan******2000 Equity Incentive Plan***

Under the 2000 Equity Incentive Plan ("2000 Plan"), the Company was authorized to grant to eligible participants either incentive stock options ("ISOs") or non-statutory stock options ("NSOs"). The ISOs were granted at a price per share not less than the fair market value at the date of grant. The NSOs were granted at a price per share not less than 85% of the fair market value at the date of grant. Options granted generally vest over a period of up to four years, with a maximum term of ten years. The 2000 Plan was terminated in connection with the closing of the Company's initial public offering, and accordingly, no shares are currently available for grant under the 2000 Plan. The 2000 Plan continues to govern outstanding awards granted thereunder.

2012 Equity Incentive Plan

The 2012 Equity Incentive Plan ("Previous 2012 Plan") was adopted and approved in September 2012 and became effective on September 26, 2012. Under the Previous 2012 Plan, the Company is authorized to grant to eligible participant's ISOs, NSOs, stock appreciation rights ("SARs"), restricted stock awards ("RSAs"), RSUs, performance units and performance shares. The number of shares of common stock available for issuance under the Previous 2012 Plan is subject to an annual increase on January 1 of each year by an amount equal to the least of 3,050 thousand shares, 5% of the outstanding shares of stock as of the last day of the immediately preceding fiscal year or an amount determined by the board of directors. For the year ended December 31, 2022, 1,956 thousand shares were added to the Previous 2012 Plan.

On June 8, 2022 ("Effective Date"), the Company's stockholders approved the Amended and Restated 2012 Equity Incentive Plan (the "Restated 2012 Plan"). Under the Restated 2012 Plan, the Company is authorized to grant to eligible participants incentive stock options ("ISOs"), nonstatutory stock options ("NSOs"), restricted stock, restricted stock units ("RSUs"), stock appreciation rights ("SARs"), performance units and performance shares. Pursuant to the relevant plan provisions, 3,072 thousand shares were available for grant under the Restated 2012 Plan on the Effective Date. In addition, any outstanding awards or options granted under the Previous 2012 Equity Incentive Plan will be added back to the shares available for grant under the Restated 2012 Plan if they expire unexercised or are otherwise forfeited after the Effective Date. Any remaining shares of 9,689 thousand available for grant under the Previous 2012 Plan as of the Effective Date were no longer available for future grants under the Restated 2012 Plan. As of December 31, 2022, 2,351 thousand shares are available for future grants. Options may be granted with an exercise price that is at least equal to the fair market value of the Company's stock at the date of grant and are exercisable when vested. Options and RSU's granted generally vest over a period of up to four years. ISOs may only be granted to employees and any subsidiary corporations' employees. All other awards may be granted to employees, directors and consultants and subsidiary corporations' employees and consultants. Options, SARs, RSUs, performance units and performance awards may be granted with vesting terms as determined by the board of directors and expire no more than ten years after the date of grant or earlier if employment or service is terminated.

2021 Employee Stock Purchase Plan

On June 9, 2021, the Company's stockholders approved the 2021 ESPP. A total of 600 thousand shares were authorized for issuance to eligible participating employees upon adoption of the ESPP. The ESPP provides for consecutive 6-month offering periods beginning on or about August 16 and February 16 of each year. Eligible employees who elect to participate can contribute from 1% to 15% of their eligible compensation through payroll withholding. During any offering period, contribution rates cannot be changed. However, eligible employees may withdraw from the current offering period. Any contributions made prior to each purchase date in the case of withdrawal or termination of employment will be refunded. On each purchase date, eligible participating employees will purchase the shares at a price per share equal to 85% of the lesser of (i) the fair market value of the Company's stock on the first trading day of the offering period or (ii) the fair market value of the Company's stock on the purchase date (i.e., the last trading day of the offering period). As of December 31, 2022, 555 thousand shares are available for future purchase.

Stock-based Compensation

The following table shows a summary of the stock-based compensation expenses included in the consolidated statements of operations for the years ended December 31, 2022, 2021 and 2020:

| | Year Ended December 31, | | |
|---------------------------------------|--------------------------------|------------------|------------------|
| | 2022 | 2021 | 2020 |
| | (in thousands) | | |
| Cost of revenues | \$ 5,305 | \$ 3,782 | \$ 2,767 |
| Research and development | 14,585 | 10,750 | 13,502 |
| Sales and marketing | 9,837 | 6,323 | 5,785 |
| General and administrative | 23,681 | 46,724 | 17,981 |
| Total stock-based compensation | \$ 53,408 | \$ 67,579 | \$ 40,035 |

The income tax benefit related to the stock-based compensation expenses was \$8.3 million, \$6.2 million and \$5.3 million for the years ended December 31, 2022, 2021 and 2020, respectively. As of December 31, 2022, the Company had unrecognized stock-based compensation expenses of

\$24.5 million, \$92.2 million and \$0.3 million related to options, RSUs and ESPP, respectively, which are expected to be recognized over weighted-average periods of 2.9 years, 2.8 years and 0.1 years, respectively.

Performance-Based Stock Options and Restricted Stock Units

On December 21, 2018, the Compensation and Talent committee of the Company's board of directors ("Compensation Committee") granted the equity award for 2019 to the Company's former chief executive officer, Philippe Courtot ("Mr. Courtot"). The first portion of the award consisted of 56 thousand RSUs that were scheduled to vest in 16 quarterly increments beginning on January 1, 2019. The second portion of the award consisted of a target number of 33 thousand PSUs, which were scheduled to vest at the end of the three-year performance period from January 2019 through December 2021. The actual number of PSUs eligible to vest ranged from 0% to 200% of the target number, depending on the level of achievement of goals related to revenue growth during the three-year performance period from January 2019 through December 2021 and Adjusted EBITDA margin for the fiscal year of 2021. The third portion of the award consisted of a target number of 33 thousand PSUs, one third of which (11 thousand target PSUs) was scheduled to vest at the end of each fiscal year of 2019, 2020 and 2021. The actual number of PSUs eligible to vest at each vesting date ranged from 0% to 200% of the target number, depending on the level of achievement of goals related to revenue growth and Adjusted EBITDA margin for each of those years.

On November 2, 2019, the Compensation Committee granted the equity award for 2020 to Mr. Courtot. The first portion of the award consisted of 49 thousand RSUs that were scheduled to vest in 16 quarterly installments beginning on December 1, 2019. The second portion of the award consisted of a target number of 124 thousand PSOs, which were scheduled to vest at the end of the three-year performance period from January 2020 through December 2022. The actual number of PSOs eligible to vest ranged from 0% to 200% of the target number, depending on the level of achievement of goals related to revenue growth and free cash flow per share growth during the performance period.

On December 10, 2020, the Compensation Committee granted the equity award for 2021 to Mr. Courtot. The first portion of the award consisted of 69 thousand RSUs that were scheduled to vest in 16 quarterly installments beginning on November 1, 2020. The second portion of the award consisted of a target number of 224 thousand PSOs, which were scheduled to vest at the end of the three-year performance period from January 2021 through December 2023. The actual number of PSOs eligible to vest ranged from 0% to 200% of the target number, depending on the level of achievement of goals related to revenue growth and free cash flow per share growth during the performance period.

The vesting of the above awards was conditioned on Mr. Courtot's continued service through the vesting dates or, for PSOs and PSUs, the dates that performance is certified in addition to the achievement of performance goals. If Mr. Courtot's employment was terminated (a) by reason of death or disability or (b) by the Company for reasons other than cause or good reason within 12 months following a change in control, then 100% of any unvested portions of these awards would vest, with any vesting in connection with change in control terminations conditioned upon the effectiveness of a release of claims in favor of the Company.

In February 2021 and 2020, 22 thousand shares (representing 200% of target number of awards) and 15 thousand shares (representing 135% of target number of awards) under the equity award for 2019 for Mr. Courtot, vested as a result of the Company achieving the corresponding level of performance goals for 2020 and 2019, respectively.

On March 19, 2021, Mr. Courtot resigned from the Company due to health issues. The Compensation Committee determined that Mr. Courtot's termination of employment was on account of disability. In accordance with the grant agreements of the equity awards for 2021, 2020 and 2019 for Mr. Courtot, all remaining outstanding RSUs, PSUs and PSOs under these grants were subject to accelerated vesting and became fully vested at 100% of the target number of awards as of the date of his termination of employment, which consist of 127 thousand RSUs, 44 thousand PSUs and 348 thousand PSOs. As a result, the Company recognized an additional \$27.3 million of stock-based compensation expense due to the accelerated vesting in the consolidated statements of operations for the year ended December 31, 2021.

On April 27, 2021, the Compensation Committee granted to the Company's current president and chief executive officer an equity award consisting of certain RSUs and a target number of 10 thousand PSUs. The PSUs are scheduled to vest at the end of the three-year performance period from January 2021 through December 2023. The actual number of the PSUs eligible to vest range from 0% to 200% of the target number, depending on the level of achievement of goals related to revenue growth and free cash flow per share growth during the performance period. If the Company's current president and chief executive officer is terminated (a) by reason of death or disability or (b) by the Company for reasons other than cause or good reason within 12 months following a change in control, then 100% of any unvested portions of the award will vest, with any vesting in connection with terminations due to change in control conditioned upon the effectiveness of a release of claims in favor of the Company.

On October 28, 2021, the Compensation Committee approved to certain executive officers of the Company equity awards consisting of certain RSUs and an aggregate target number of 73 thousand PSUs. The target PSUs are scheduled to vest in three equal annual installments over a three-year period from January 2022 through December 2024. Each annual installments at 200% of the annual target will be considered granted when the performance targets for the corresponding performance year are determined and approved. The actual number of the PSUs eligible to vest each year range from 0% to 200% of the annual target number, depending on the level of achievement of goals related to revenue growth and adjusted EBITDA margin corresponding to that year. The vesting and release of the first and second installment is capped at 100% of the target number at the end of the first and second year, respectively, with cumulative achievement over 100%, if any, to be vested and released at the end of the third year, together with the vesting of the third installment. If any of the executive officers is terminated (a) by reason of death or disability or (b) by the Company for reasons other than cause or good reason within 12 months following a change in control, any unvested PSUs eligible to vest pursuant to cumulative achievements over 100% for past installments along with any target number of unvested PSUs for any remaining installments will vest immediately.

On October 27, 2022, the Compensation Committee approved to certain executive officers of the Company equity awards consisting of certain RSUs and an aggregate target number of 86 thousand PSUs. The target PSUs are scheduled to vest in three equal annual installments over a three-year period from January 2023 through December 2025. Each annual installments at 200% of the annual target will be considered granted when the performance targets for the corresponding performance year is determined and approved. The actual number of the PSUs eligible to vest each year range from 0% to 200% of the annual target number, depending on the level of achievement of goals related to revenue growth and adjusted EBITDA margin corresponding to that year. The vesting and release of the first and second installment is capped at 100% of the target number at the end of the first and second year, respectively, with cumulative achievement over 100%, if any, to be vested and released at the end of the third year, together with the vesting of the third installment. If any of the executive officers is terminated (a) by reason of death or disability or (b) by the Company for reasons other than cause or good reason within 12 months following a change in control, any unvested PSUs eligible to vest pursuant to cumulative achievements over 100% for past installments along with any target number of unvested PSUs for any remaining installments will vest immediately.

For the years ended December 31, 2022, 2021 and 2020, stock-based compensation expenses of \$[nil], \$13.3 million and \$0.2 million for PSOs, respectively, and \$3.9 million, \$5.3 million and \$2.8 million for PSUs, respectively, were recognized.

Stock Options

The weighted-average grant date fair value of the Company's stock options granted for the years ended December 31, 2022, 2021 and 2020 was \$50.32, \$41.23 and \$35.49, respectively, using the Black-Scholes-Merton option-pricing model based on the following assumptions:

| | Year Ended December 31, | | |
|--------------------------|-------------------------|--------------|--------------|
| | 2022 | 2021 | 2020 |
| Expected term (in years) | 4.3 to 4.4 | 5.2 to 5.5 | 4.5 to 5.5 |
| Volatility | 40% to 43% | 38% to 41% | 38% to 43% |
| Risk-free interest rate | 1.7% to 4.2% | 0.5% to 1.2% | 0.3% to 1.4% |
| Dividend yield | — | — | — |

The expected term of the options is based on evaluations of historical and expected future employee exercise behavior. The risk-free interest rate is based on the U.S. Treasury rates at the date of grant with maturity dates equal to the expected term at the grant date. The volatility was estimated using the historical volatility derived from the Company's common stock. The Company has not historically declared any dividends and does not expect to in the future.

A summary of the Company's stock option activity is as follows:

| | Outstanding Options (in thousands) | Weighted Average Exercise Price | Weighted Average Contractual Life (Years) | Aggregate Intrinsic Value (in thousands) |
|---|---------------------------------------|---------------------------------|--|---|
| Balance as of December 31, 2021 | 1,838 | \$ 66.05 | 6.0 | \$ 130,791 |
| Granted | 593 | \$ 133.43 | | |
| Exercised | (468) | \$ 52.29 | | |
| Canceled | (156) | \$ 114.21 | | |
| Balance as of December 31, 2022 | 1,807 | \$ 87.59 | 6.5 | \$ 58,024 |
| Vested and expected to vest - December 31, 2022 | 1,583 | \$ 81.95 | 6.1 | \$ 57,690 |
| Exercisable - December 31, 2022 | 981 | \$ 56.25 | 4.4 | \$ 56,062 |

The total intrinsic value of options exercised for the years ended December 31, 2022, 2021 and 2020 was \$39.8 million, \$42.5 million and \$77.5 million, respectively. Intrinsic value of an option is the difference between the fair value of the Company's common stock at the time of exercise and the exercise price paid.

Restricted Stock Units

A summary of the Company's RSU activity is as follows:

| | Outstanding RSUs (in thousands) | Weighted Average Grant Date Fair Value |
|--|------------------------------------|--|
| Balance as of December 31, 2021 | 952 (1) | \$ 105.20 |
| Granted | 711 (2) | \$ 137.50 |
| Vested | (330) | \$ 100.27 |
| Forfeited | (150) | \$ 117.63 |
| Balance as of December 31, 2022 | 1,183 (3) | \$ 124.42 |
| Outstanding and expected to vest - December 31, 2022 | 929 | \$ 122.55 |

(1) Included 68 thousand shares of PSUs granted to certain executive officers in 2021 for performance year 2022 at 200% vest level.

(2) Included 58 thousand shares of PSUs granted to certain executive officers in 2022 and 49 thousand shares of PSU granted in 2021 as a result of defining the level of performance goals for performance year 2023.

(3) Included 175 thousand shares of PSUs granted to certain executive officers in 2022 and 2021.

The aggregate fair value of RSUs vested for the years ended December 31, 2022, 2021 and 2020 was \$43.9 million, \$59.5 million and \$46.5 million, respectively.

Employee Stock Purchase Plan

The weighted-average grant date fair value of the Company's ESPP for the year ended December 31, 2022 was \$39.14 using the Black-Scholes-Merton option-pricing model based on the following assumptions:

| | Year Ended December 31, 2022 |
|--------------------------|---|
| Expected term (in years) | 0.5 |
| Volatility | 41.1% to 50.1% |
| Risk-free interest rate | 0.7% to 3.1% |
| Dividend yield | — |

The expected term of the ESPP represents the six-month offering period. The risk-free interest rate is based on the U.S. Treasury rates at the date of grant with maturity dates equal to the expected term at the grant date. The volatility was estimated using the historical volatility derived from the Company's common stock. The Company has not historically declared any dividends and does not expect to in the future.

Share Repurchase Program

The Company's share repurchase program was authorized by the board of directors as follows:

| Announcement Date | Authorized Dollar Value (in millions) |
|-------------------------------|--|
| February 12, 2018 | \$ 100.0 |
| October 30, 2018 | 100.0 |
| October 30, 2019 | 100.0 |
| May 7, 2020 | 100.0 |
| February 10, 2021 | 100.0 |
| November 3, 2021 | 200.0 |
| May 4, 2022 | 200.0 |
| Total as of December 31, 2022 | <u>\$ 900.0</u> |

Shares may be repurchased from time to time on the open market in accordance with Rule 10b-18 of the Exchange Act of 1934, including pursuant to a pre-set trading plan adopted in accordance with Rule 10b5-1 under the Exchange Act. All share repurchases have been made using cash resources. Repurchased shares are retired and reclassified as authorized and unissued shares of common stock. On retirement of the repurchased shares, common stock is reduced by an amount equal to the number of shares being retired multiplied by the par value. The excess amount that is retired over its par value is first allocated as a reduction to additional paid-in capital based on the initial public offering price of the stock, with the remaining excess to retained earnings.

For the years ended December 31, 2022, 2021 and 2020, the Company repurchased 2.5 million shares, 1.1 million shares and 1.3 million shares of its common stock for \$317.3 million, \$130.0 million and \$126.7 million, respectively. As of December 31, 2022, \$154.5 million remained available for share repurchases pursuant to the Company's share repurchase program.

On February 9, 2023, the Company announced that its Board of Directors authorized an additional \$100.0 million under the share repurchase program, increasing the total amount of authorized repurchase to \$1.0 billion.

NOTE 11. Employee Benefits Plan

The Company's 401(k) Plan was established in 2000 to provide retirement and incidental benefits for its employees. As allowed under section 401(k) of the Internal Revenue Code, the 401(k) Plan provides tax-deferred salary deductions for eligible employees. Contributions to the 401(k) Plan are limited to a maximum amount as set periodically by the Internal Revenue Service. For the years ended December 31, 2022, 2021 and 2020, the Company made contributions to the 401(k) Plan of \$3.5 million, \$2.4 million and \$1.3 million, respectively.

The Company contributes to a Provident Fund Plan for its employees in India, which is a defined contribution plan set up in accordance with local labor and tax laws. Gratuity is also paid by the Company to eligible employees in India in accordance with Payment of Gratuity Act, 1972. For the years ended December 31, 2022, 2021 and 2020, the Company contributed \$2.0 million, \$1.7 million and \$1.4 million, respectively, to those plans.

NOTE 12. Income Taxes

The Company's geographical breakdown of income before income taxes is as follows:

| | Year Ended December 31, | | |
|-----------------------------------|-------------------------|------------------|-------------------|
| | 2022 | 2021 | 2020 |
| | (in thousands) | | |
| Domestic | \$ 122,013 | \$ 80,472 | \$ 94,099 |
| Foreign | 11,687 | 8,925 | 7,938 |
| Income before income taxes | \$ 133,700 | \$ 89,397 | \$ 102,037 |

Income tax provision consists of the following:

| | Year Ended December 31, | | |
|---|-------------------------|------------------|------------------|
| | 2022 | 2021 | 2020 |
| | (in thousands) | | |
| Current | | | |
| Federal | \$ 35,286 | \$ 20,135 | \$ 1,944 |
| State | 6,269 | 4,324 | 1,438 |
| Foreign | 4,606 | 3,701 | 3,571 |
| Current income tax provision | 46,161 | 28,160 | 6,953 |
| Deferred | | | |
| Federal | (17,097) | (7,342) | 4,239 |
| State | (3,055) | (1,722) | 26 |
| Foreign | (301) | (659) | (753) |
| Deferred income tax provision (benefit) | (20,453) | (9,723) | 3,512 |
| Income tax provision | \$ 25,708 | \$ 18,437 | \$ 10,465 |

The reconciliation of the statutory federal income tax rate to the Company's effective tax rate is as follows:

| | Year Ended December 31, | | |
|---|-------------------------|--------------|--------------|
| | 2022 | 2021 | 2020 |
| Federal statutory rate | 21.0% | 21.0% | 21.0% |
| State taxes | 2.3 | 3.1 | 1.6 |
| Stock-based compensation | 3.4 | 10.3 | 4.8 |
| Excess tax benefits related to stock-based compensation | (5.2) | (5.4) | (13.8) |
| Foreign source income | 3.8 | 0.4 | 0.2 |
| Change in valuation allowance | 0.3 | 0.2 | 0.8 |
| Foreign-derived intangible income deduction | (4.9) | (7.0) | (1.7) |
| Federal and state research and development credit | (1.3) | (1.9) | (2.6) |
| Other | (0.2) | (0.1) | — |
| Income tax provision | 19.2% | 20.6% | 10.3% |

Deferred Income Taxes

Deferred income taxes reflect the tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The components of the Company's deferred tax assets and liabilities are as follows:

| | December 31, | |
|---|---------------------|------------------|
| | 2022 | 2021 |
| (in thousands) | | |
| Deferred tax assets | | |
| Research and development credit carryforwards | \$ 10,957 | \$ 10,743 |
| Accrued liabilities | 3,677 | 1,655 |
| Deferred revenues | 5,766 | 7,250 |
| Operating lease liabilities | 10,667 | 11,777 |
| Intangible assets | 3,465 | 2,988 |
| Stock-based compensation | 4,691 | 4,085 |
| Capitalized R&D | 30,234 | 9,389 |
| Other | 2,195 | 3,920 |
| Gross deferred tax assets | 71,652 | 51,807 |
| Valuation allowance | (12,476) | (11,364) |
| Total deferred tax assets | 59,176 | 40,443 |
| Deferred tax liabilities | | |
| Fixed assets | (1,745) | (3,320) |
| Operating leases - right of use asset | (8,359) | (9,010) |
| Deferred commissions | (3,660) | (3,026) |
| Total deferred tax liabilities | (13,764) | (15,356) |
| Net deferred tax assets | \$ 45,412 | \$ 25,087 |

The realization of deferred tax assets is dependent upon the generation of sufficient taxable income of the appropriate character in future periods. 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, or all, of the deferred tax assets will not be realized. The Company weighs all available positive and negative evidence, including its earnings history and results of recent operations, scheduled reversals of deferred tax liabilities, projected future taxable income, and tax planning strategies. Due to the weight of objectively verifiable negative evidence, it is more-likely-than-not that its California deferred tax assets will not be realized as of December 31, 2022. Additionally, due to a lack of sufficient future income of the appropriate character, certain U.S. federal and state deferred tax assets are not more-likely-than-not to be realized. Accordingly, the Company has recorded a valuation allowance of \$12.5 million and \$11.4 million against such deferred tax assets as of December 31, 2022 and 2021, respectively. The increase of \$1.1 million in valuation allowance was mainly associated with the California research and development credit generated during the year ended December 31, 2022 and unrealized loss on available for sale securities that will not likely be realized in the foreseeable future.

As of December 31, 2022, the Company had \$16.2 million of state research and development credit carryforwards. State research and development credits do not expire. As of December 31, 2022, the Company had foreign tax credit carryforwards of \$0.9 million which begin to expire in 2028.

The following table summarizes the activity related to the Company's unrecognized tax benefits:

| | Year Ended December 31, | | |
|--|-------------------------|-----------------|-----------------|
| | 2022 | 2021 | 2020 |
| | (in thousands) | | |
| Unrecognized tax benefits beginning balance | \$ 9,676 | \$ 8,855 | \$ 7,778 |
| Gross increase for tax positions of prior years | 89 | — | 4 |
| Gross decrease for tax positions of prior years | — | (25) | — |
| Gross increase for tax positions of current year | 777 | 846 | 1,258 |
| Lapse of statute of limitations | — | — | (185) |
| Total unrecognized tax benefits | <u>\$ 10,542</u> | <u>\$ 9,676</u> | <u>\$ 8,855</u> |

The unrecognized tax benefits, if recognized, would impact the income tax provision by \$5.3 million, \$4.9 million and \$4.6 million as of December 31, 2022, 2021 and 2020, respectively. The remaining amount would result in the recognition of a corresponding deferred tax asset that is then offset by a full valuation allowance. As of December 31, 2022, the Company does not believe that its estimates, as otherwise provided for, on such tax positions will significantly increase or decrease within the next twelve months. The Company has elected to include interest and penalties as a component of income tax expense. The amounts were not material for the years ended December 31, 2022, 2021 and 2020.

The Company files income tax returns in the United States, including various state jurisdictions. The Company's subsidiaries file tax returns in various foreign jurisdictions. The tax years 2001 through 2021 remain open to examination by the major taxing jurisdictions in which the Company is subject to tax. The Company is also currently subject to tax audits in various jurisdictions. The Company believes that an adequate provision has been made for any adjustments that may result from tax examinations. However, the outcome of tax audits cannot be predicted with certainty. If any issues addressed in the Company's tax audits are resolved in a manner inconsistent with its expectations, the Company could be required to adjust its income tax provision in the period such resolution occurs.

As of December 31, 2022, the Company has undistributed earnings in certain foreign subsidiaries that the Company has indefinitely reinvested outside the United States. As a result, the Company has not provided for deferred tax liabilities on those earnings. The Company may be required to pay additional income taxes if the Company repatriates those earnings in the future.

NOTE 13. Segment and Geographic Area Information

Under ASC 280 Segment Reporting, operating segments are defined as components of an entity about which separate financial information is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing performance. The Company operates in one segment and has only one reportable segment. The Company's chief operating decision maker is the Chief Executive Officer, who makes operating decisions, assesses performance and allocates resources on a consolidated basis. All of the Company's principal operations and decision-making functions are located in the United States.

Revenue by geographic area, based on the customer's billing address, is as follows:

| | Year Ended December 31, | | |
|-----------------------|-------------------------|-------------------|-------------------|
| | 2022 | 2021 | 2020 |
| | (in thousands) | | |
| United States | \$ 292,291 | \$ 252,428 | \$ 229,484 |
| Foreign | 197,432 | 158,744 | 133,479 |
| Total revenues | \$ 489,723 | \$ 411,172 | \$ 362,963 |

Long-lived assets, which consist of Property and equipment, net and Operating leases - right of use asset, by geographic area, are as follows:

| | December 31, | |
|--------------------------------|------------------|------------------|
| | 2022 | 2021 |
| | (in thousands) | |
| United States | \$ 58,775 | \$ 66,440 |
| India | 16,057 | 20,401 |
| Rest of world | 6,348 | 12,029 |
| Total Long-lived Assets | \$ 81,180 | \$ 98,870 |

NOTE 14. Net Income Per Share

The computations for basic and diluted net income per share are as follows:

| | Year Ended December 31, | | |
|--|---------------------------------------|------------------|------------------|
| | 2022 | 2021 | 2020 |
| | (in thousands, except per share data) | | |
| Numerator: | | | |
| Net income | \$ 107,992 | \$ 70,960 | \$ 91,572 |
| Denominator: | | | |
| Basic weighted average shares | 38,453 | 39,030 | 39,167 |
| Effect of potentially dilutive shares: | | | |
| Stock options | 672 | 863 | 1,262 |
| Restricted stock units | 216 | 224 | 311 |
| Employee stock purchase plan | 3 | 1 | — |
| Diluted weighted average shares | \$ 39,344 | \$ 40,118 | \$ 40,740 |
| Net income per share: | | | |
| Basic | \$ 2.81 | \$ 1.82 | \$ 2.34 |
| Diluted | \$ 2.74 | \$ 1.77 | \$ 2.25 |

Potentially dilutive shares not included in the calculation of diluted net income per share because doing so would be anti-dilutive are as follows:

| | Year Ended December 31, | | |
|-----------------------------------|-------------------------|------------|------------|
| | 2022 | 2021 | 2020 |
| | (in thousands) | | |
| Stock options | 686 | 534 | 532 |
| Restricted stock units | 90 | 61 | 52 |
| Employee stock purchase plan | 5 | — | — |
| Total anti-dilutive shares | 781 | 595 | 584 |

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

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2022. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under 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 Securities and Exchange Commission’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures 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 accumulated and communicated to the company’s management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of December 31, 2022, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Management’s Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act. Our 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 U.S. GAAP. Our internal control over financial reporting includes those policies and procedures that: (i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of our assets, (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. GAAP, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors, and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our 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.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2022 based on the criteria established in the 2013 Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission, or COSO. Based on our evaluation under the criteria set forth in the 2013 Internal Control - Integrated Framework issued by the COSO, our management concluded our internal control over financial reporting was effective as of December 31, 2022.

The effectiveness of the Company’s internal control over financial reporting as of December 31, 2022 has been audited by Grant Thornton LLP, an independent registered public accounting firm, as stated in its report, which is included in Item 8 of this Annual Report on Form 10-K.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the fourth quarter ended December 31, 2022 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Executive Officers and Directors

Except as set forth below, the information required by this item is incorporated by reference to our Proxy Statement for our 2023 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2022.

Codes 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, including our Chief Executive Officer, Chief Financial Officer and other executive and senior financial officers. The code of business conduct and ethics is available on our website. We expect that, to the extent required by law, any amendments to the code, or any waivers of its requirements, will be disclosed on our website. We intend to disclose any waiver to the provisions of the code of business conduct and ethics that applies specifically to directors or executive officers by filing such information on a Current Report on Form 8-K with the SEC, to the extent such filing is required by the NASDAQ Stock Market's listing requirements; otherwise, we will disclose such waiver by posting such information on our website.

Item 11. Executive Compensation

The information required by this item is incorporated by reference to our Proxy Statement for our 2023 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2022.

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

The information required by this item with respect to Item 403 of Regulation S-K regarding security ownership of certain beneficial owners and management is incorporated by reference to our Proxy Statement for our 2023 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2022. For the information required by this item with respect to Item 201(d) of Regulation S-K regarding securities authorized for issuance under equity compensation plans, see "Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities—Securities Authorized for Issuance under Equity Compensation Plans" in Item 5 of this Annual Report on Form 10-K.

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

The information required by this item is incorporated by reference to our Proxy Statement for our 2023 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2022.

Item 14. Principal Accounting Fees and Services

The information required by this item is incorporated by reference to our Proxy Statement for our 2023 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2022.

PART IV**Item 15. Exhibits and Financial Statement Schedules**

(a)(1) Financial Statements - The financial statements filed as part of this Annual Report on Form 10-K are listed on the Index to Consolidated Financial Statements in Item 8.

(a)(2) Financial Statement Schedules - All financial statement schedules have been omitted since the required information is not applicable or has been included in the consolidated financial statements and accompanying notes included in this Form 10-K.

(b) Exhibits

| Exhibit Number | Description | Incorporated by Reference | | | | |
|----------------|---|---------------------------|--------------------------|------------|-------------|--------------------|
| | | Filed Herewith | Form | File No. | Exhibit No. | Filing Date |
| 3.1 | Amended and Restated Certificate of Incorporation of Qualys, Inc. | | S-1/A | 333-182027 | 3.3 | September 12, 2012 |
| 3.2 | Amended and Restated Bylaws of Qualys, Inc. | | 8-K | 001-35662 | 3.1 | November 2, 2022 |
| 4.1 | Form of common stock certificate. | | S-1/A | 333-182027 | 4.1 | September 12, 2012 |
| 4.2 | Description of Registrant's securities | | 10-K | 001-35662 | 4.2 | February 21, 2020 |
| 10.1* | 2000 Equity Incentive Plan, as amended, and the form of stock option agreement thereunder. | | S-1 | 333-182027 | 10.1 | June 8, 2012 |
| 10.2* | Qualys, Inc. 2012 Equity Incentive Plan, as amended, restated and extended. | | 8-K | 001-35662 | 10.1 | June 10, 2022 |
| 10.3* | Qualys, Inc. 2021 Employee Stock Purchase Plan | | 8-K | 001-35662 | 10.1 | June 11, 2021 |
| 10.4* | Offer Letter, between Qualys, Inc. and Sumedh S. Thakar, dated January 20, 2003. | | S-1 | 333-182027 | 10.5 | June 8, 2012 |
| 10.5* | Offer Letter, between Qualys, Inc. and Joo Mi Kim, dated May 21, 2020. | | 8-K | 001-35662 | 10.1 | May 26, 2020 |
| 10.6* | Offer Letter, between Qualys, Inc. and Bruce K. Posey, dated May 8, 2012. | | S-1 | 333-182027 | 10.9 | June 8, 2012 |
| 10.7* | Offer Letter, between Qualys, Inc. and Allan Peters, dated April 26, 2021. | | 10-K | 001-35662 | 10.7 | February 22, 2022 |
| 10.8* | Form of Performance-Based Restricted Stock Unit Agreement for Executives under the 2012 Equity Incentive Plan, dated October 28, 2021 | | 10-K | 001-35662 | 10.8 | February 22, 2022 |
| 10.9* | Form of director and executive officer indemnification agreement. | | S-1/A | 333-182027 | 10.10 | August 10, 2012 |
| 10.10* | Qualys, Inc. Executive Performance Bonus Plan. | | Schedule 14A, Appendix A | 001-35662 | N/A | April 25, 2016 |

| Exhibit Number | Description | Incorporated by Reference | | | | |
|----------------|---|---------------------------|------|-----------|-------------|------------------|
| | | Filed Herewith | Form | File No. | Exhibit No. | Filing Date |
| 10.11*# | Qualys, Inc. 2022 Corporate Bonus Plan. | X | | | | |
| 10.12 | Lease Agreement, between Qualys, Inc. and Hudson Metro Center, LLC, dated October 14, 2016. | | 8-K | 001-35662 | 10.1 | October 19, 2016 |
| 21.1 | List of subsidiaries of Qualys, Inc. | X | | | | |
| 23.1 | Consent of Grant Thornton LLP, independent registered public accounting firm. | X | | | | |
| 31.1 | Certification of Chief Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of The Sarbanes-Oxley Act of 2002. | X | | | | |
| 31.2 | Certification of Chief Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of The Sarbanes-Oxley Act of 2002. | X | | | | |
| 32.1 | Certification of Chief Executive Officer pursuant to Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of The Sarbanes-Oxley Act of 2002. | X | | | | |
| 32.2 | Certification of Chief Financial Officer pursuant to Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of The Sarbanes-Oxley Act of 2002. | X | | | | |
| 101.INS | Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document. | X | | | | |
| 101.SCH | Inline XBRL Taxonomy Extension Schema Document. | X | | | | |
| 101.CAL | Inline XBRL Taxonomy Extension Calculation Linkbase Document. | X | | | | |
| 101.DEF | Inline XBRL Taxonomy Extension Definition Linkbase. | X | | | | |
| 101.LAB | Inline XBRL Taxonomy Extension Labels Linkbase Document. | X | | | | |
| 101.PRE | Inline XBRL Taxonomy Extension Presentation Linkbase Document. | X | | | | |
| 104 | Cover Page Interactive Data File - formatted in Inline XBRL and included as Exhibit 101. | X | | | | |
| | * Indicates a management contract or compensatory plan or arrangement. | | | | | |
| | † Portions of this exhibit have been omitted due to a determination by the Securities and Exchange Commission that these portions should be granted confidential treatment. | | | | | |
| | # Portions of the exhibit, marked by brackets, have been omitted because the omitted information (i) is not material and (ii) would likely cause competitive harm if publicly disclosed. | | | | | |

[Table of Contents](#)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities indicated:

| Signature | Title | Date |
|---|--|-------------------|
| <u>/s/ SUMEDH THAKAR</u> Sumedh Thakar | Director, President and Chief Executive Officer (principal executive officer) | February 23, 2023 |
| <u>/s/ JOO MI KIM</u> Joo Mi Kim | Chief Financial Officer (principal financial officer and principal accounting officer) | February 23, 2023 |
| <u>/s/ JEFFREY P. HANK</u> Jeffrey P. Hank | Chair of the Board of Directors | February 23, 2023 |
| <u>/s/ WILLIAM BERUTTI</u> William Berutti | Director | February 23, 2023 |
| <u>/s/ GENERAL PETER PACE</u> General Peter Pace | Director | February 23, 2023 |
| <u>/s/ KRISTI M. ROGERS</u> Kristi M. Rogers | Director | February 23, 2023 |
| <u>/s/ WENDY M. PFEIFFER</u> Wendy M. Pfeiffer | Director | February 23, 2023 |
| <u>/s/ JOHN A. ZANGARDI</u> John A. Zangardi | Director | February 23, 2023 |

***] Certain information in this document has been excluded because it both (i) is not material and (ii) would likely cause competitive harm to the registrant if publicly disclosed.



2022 CORPORATE BONUS PLAN

1. Purpose. The purpose of this 2022 Corporate Bonus Plan (the “Plan”) is to motivate and encourage the employees of Qualys (the “Company”) to achieve its stated goals and to assist the Company in attracting, motivating and retaining employees on a competitive basis.

2. Eligibility

(a) An officer or employee of the Company is designated as a participant in the Plan (“Participant”) and shall be eligible to participate in the Plan if he or she is a regular full-time or regular part-time employee (working greater than 20 hours a week) and he or she is not already participating in a separate Compensation Plan or MBO plan.

(b) **New Hires.** New employees hired in the first or second month of a quarter will be eligible to participate in the Plan for that quarter, such participation will be prorated based on the number of days employed in the quarter.

(c) **Termination of Employment.** To be eligible for the bonus, the employee must be employed as of the last day of the quarter.

(d) **Absence during Performance Period.** If a Participant is absent for a period of more than one-half of the scheduled workdays during a quarter, for any reason, the Participant’s bonus payment will be prorated based on the number of days the Participant actually worked compared to the total number of scheduled work days during that quarter.

3. Bonus Criteria

(a) **Bonus Period.** The Bonus Plan is effective from January 1, 2022 through December 31, 2022. Each calendar quarter is a separate bonus period.

(b) **Bonus Level.** A Participant’s level of participation in the Plan is set based on their grade level as determined by the Human Resources Department and is applied to the Participant’s base salary as of the last day of that quarter to determine the bonus amount.

(c) **Objective Criteria:** The Plan payments will be based on ASV (as defined below), Revenue (as defined below) and Non-GAAP EPS (as defined below).

(1) **ASV.** The stated goal is the growth in company-wide bookings as represented by Annual Subscription Value (“ASV”) for the current quarter over the same quarter of the prior year. ASV is the sum of one year’s worth of subscribed revenues to Qualys for all new, renewal and upsell subscriptions contracted by customers and channel partners in each quarter. ASV is determined by policies and practices administered by the Controller and the final quarterly ASV amount is approved by the CFO.

(2) **Revenue.** The stated goal is the growth in company-wide revenue (as determined in accordance with GAAP and set forth in the Company’s quarterly and annual financial statements) for the current quarter over the same quarter of the prior year.

(3) **Non-GAAP EPS.** The stated goal is Non-GAAP earnings per diluted share. Non-GAAP EPS is GAAP net income less stock-based compensation expense, acquisition-related expenses (except for ordinary course advisory fees), tax adjustments and bonus payments under this Plan *divided by* weighted average shares (diluted) for the applicable quarter.

(d) **Payout Calculation.** A Participant’s bonus amount will be equal to the aggregate for each of the applicable objective goals as follows: the payment percentage described below *multiplied by* weighting percentage for the applicable goal. ASV Growth, Revenue Growth and Non-GAAP EPS shall be the 3 goals and shall be equally weighted.

(1) **ASV.** The payout percentage scales based upon achievement of ASV as described in Section 1 of the Appendix.

(2) **Revenue.** The payout percentage scales based upon achievement of Revenue as described in Section 2 of the Appendix.

(3) **Non-GAAP EPS.** The payout percentage scales based upon achievement of Non-GAAP EPS as described in Section 3 of the Appendix.

(e) **Bonus Payments.** Bonus payments to Participants under this Plan will be made with the first payroll of the second month following the end of the quarter. Bonus payments are “gross” amounts, meaning that they constitute the full amount and that there will be no other increases (for example, to cover income taxes). The company will deduct from any payment under the Plan the amount of all applicable income and employment taxes, and any other amounts required by law to be withheld or deducted from such payment. None of the payments will be “benefits bearing” (i.e., the bonus amounts will not be used for purposes of determining any other company-provided benefits or compensation).

Administration. This Plan shall be administered by the Company's CFO (except with respect to Participants who are the Company's executive officers, in which case the Compensation Committee of the Board of Directors will serve as the administrator), who may make and apply such rules deemed desirable or necessary to administer the Plan in the best interests of the Company. All questions of interpretation or application of the Plan may be addressed in writing to the CFO (or as applicable, the Compensation Committee), who shall review each inquiry in good faith, and each such determination shall be final and binding. With the approval of the Compensation Committee, the results with respect to determination of ASV, Revenue, and Non- GAAP EPS will be adjusted to remove the effects of charges for restructurings, discontinued operations, extraordinary items and all items of gain, loss or expense determined to be extraordinary or unusual in nature or related to the disposal of a segment of a business or related to a change in accounting principle, asset write-downs, litigation, claims, judgments or settlements, the effect of changes in tax law or other such laws or provisions affecting reported results, accruals for reorganization and restructuring programs.

APPENDIX

1. **ASV.** The bonus will be equal to 100% if the company plan number is achieved, as indicated in the table below. For ASV achievement below company plan targets, a sliding scale will be used. ASV achievement will be rounded to the nearest ten thousand. The floor indicates the minimum required achievement for payout. Below is the current year targets and payout schedule:

[***]

2. **Revenue.** The bonus will be equal to 100% if the company plan number is achieved, as indicated in the table below. For revenue achievement below company plan targets, a sliding scale will be used. Revenue achievement will be rounded to the nearest ten thousand. The floor indicates the minimum required achievement for payout. Below is the current year targets and payout schedule:

[***]

3. **Non-GAAP EPS.** The bonus will be equal to 100% if the company plan number is achieved, as indicated in the table below. For Non-GAAP EPS achievement below company plan targets, a sliding scale will be used. Non-GAAP EPS achievement will be rounded to one cent. The floor indicates the minimum required achievement for payout.

[***]

List of subsidiaries of Qualys, Inc.*

| Name of Subsidiary | Jurisdiction of Incorporation |
|---|--------------------------------------|
| Qualys International, Inc. | United States |
| Blue Jay Acquisition Sub, Inc. | United States |
| Qualys Brazil Desenvolvimento de Produtos e Consultoria de Tecnologias de Seguranca LTDA. | Brazil |
| Qualys Canada, Ltd. | Canada |
| Qualys Technologies, S.A. | France |
| Qualys GmbH | Germany |
| Qualys Hong Kong Limited | Hong Kong |
| Qualys Security TechServices Private Ltd. | India |
| Qualys Japan K.K. | Japan |
| Qualys Singapore Pte. Ltd. | Singapore |
| Qualys Middle East FZE | United Arab Emirates |
| Qualys Ltd. | United Kingdom |
| Qualys Australia Pty Ltd. | Australia |
| Qualys Switzerland Sarl | Switzerland |
| Qualys Colombia S.A.S. | Colombia |
| Qualys South Africa Proprietary Limited | South Africa |
| Qualys Netherlands B.V. | The Netherlands |

* Inclusion on the list above is not an admission that any of the above entities, individually or in the aggregate, constitutes a significant subsidiary within the meaning of Rule 1-02(w) of Regulation S-X and Item 601(b)(21)(ii) of Regulation S-K.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our reports dated February 23, 2023, with respect to the consolidated financial statements and internal control over financial reporting included in the Annual Report of Qualys, Inc. on Form 10-K for the year ended December 31, 2022. We consent to the incorporation by reference of said reports in the Registration Statements of Qualys, Inc. on Forms S-8 (File Nos. 333-262912, 333-184394, 333-193576, 333-202587, 333-209735, 333-216232, 333-223192, 333-229908, 333-236576, 333-253373 and 333-257657).

/s/ GRANT THORNTON LLP

San Jose, California
February 23, 2023

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO RULE 13a-14(a) OR RULE 15d-14(a)
OF THE SECURITIES EXCHANGE ACT OF 1934**

I, Sumedh Thakar, certify that:

1. I have reviewed this annual report on Form 10-K of Qualys, 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 and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 23, 2023

By: /s/ SUMEDH THAKAR

Sumedh Thakar

President and Chief Executive Officer

(principal executive officer)

Qualys, Inc.

**CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO RULE 13a-14(a) OR RULE 15d-14(a)
OF THE SECURITIES EXCHANGE ACT OF 1934**

I, Joo Mi Kim, certify that:

1. I have reviewed this annual report on Form 10-K of Qualys, 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 and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 23, 2023

By: /s/ JOO MI KIM

Joo Mi Kim

Chief Financial Officer

(principal financial and accounting officer)

Qualys, Inc.

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO RULE 13a-14(b) OR RULE 15d-14(b)
OF THE SECURITIES EXCHANGE ACT OF 1934 AND 18 U.S.C. SECTION 1350**

In connection with the Annual Report of Qualys, Inc. (the "Company") on Form 10-K for the year ended December 31, 2022, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Sumedh Thakar, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 23, 2023

By: /s/ SUMEDH THAKAR

Sumedh Thakar

President and Chief Executive Officer

(principal executive officer)

Qualys, Inc.

**CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO RULE 13a-14(b) OR RULE 15d-14(b)
OF THE SECURITIES EXCHANGE ACT OF 1934 AND 18 U.S.C. SECTION 1350**

In connection with the Annual Report of Qualys, Inc. (the "Company") on Form 10-K for the year ended December 31, 2022, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Joo Mi Kim, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 23, 2023

By: /s/ JOO MI KIM

Joo Mi Kim

Chief Financial Officer

(principal financial and accounting officer)

Qualys, Inc.